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### Citation for published item:

Secombe, I. and Lawless, R. (1987) 'Work camps and company towns : settlement patterns and the Gulf oil industry.', Working Paper. University of Durham, Centre for Middle Eastern and Islamic Studies, Durham.

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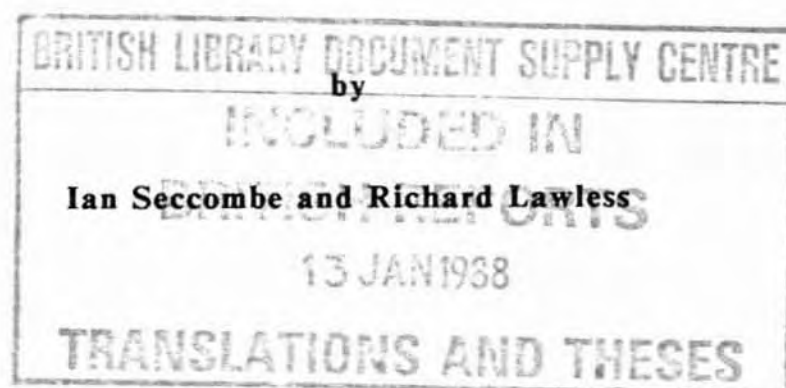
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CENTRE FOR MIDDLE EASTERN  
AND ISLAMIC STUDIES

6224-965 B7

## Work Camps and Company Towns:

### Settlement Patterns and the Gulf Oil Industry



Occasional Papers Series  
No. 36 (1987)  
ISSN 0307 0654

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Centre for Middle Eastern & Islamic Studies,  
England, 1987  
ISBN 0 903011 19 0

Series editors: John Dewdney & Heather Bleaney

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## ACKNOWLEDGMENTS

This monograph is based on research funded by the Research Fund for Special Projects of the University of Durham (project number 54 743) and by the Economic and Social Research Council (ESRC) reference number: F00232173.

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## Abbreviations

AIOC	Anglo-Iranian Oil Company
APOC	Anglo-Persian Oil Company
ARAMCO	Arabian-American Oil Company
BAPCO	Bahrain Petroleum Company
CASOC	California Arabian Standard Oil Company
E & GS	Eastern and General Syndicate
FO	Foreign Office
HMG	His Majesty's Government
IOR	India Office Records
IPQ	Iraq Petroleum Company
KOC	Kuwait Oil Company
NAA	National Archives of America
PCL	Petroleum Concession Limited
PDQ	Petroleum Development Qatar
PDTC	Petroleum Development Trucial Coast
PRO	Public Records Office
RG	Record Group
Rs.	Rupees
SOCAL	Standard Oil of California
SR	Saudi Rials
US	United States



## PREFACE

The reliance of the Gulf states on non-national labour has its origins in the development of the oil industry in the first half of the twentieth century. The role of employment generated by the new industry was considerable, particularly in its construction phases. The oil industry was by far the largest single employer in the Gulf during the 1930s and 1940s, and by 1950 more than 20,000 Gulf Arabs and 60,000 Persians were in direct oil company employment. In addition however, limitations of the local labour supply obliged the oil companies to import large numbers of foreign workers (mainly from the Indian sub-continent) to fill clerical, skilled and semi-skilled manual occupations. Professional, technical and managerial personnel from Britain and North America were also introduced to the region on a large scale for the first time. In 1950 there were more than 21,000 foreign workers employed in the Gulf oil industry.

An important, but largely neglected, aspect of the early oil industry's impact on the Gulf is its effect on population distribution and settlement patterns. The nature of the oil industry and of its particular circumstances in the Gulf gave the companies a series of problems over housing local and foreign workers. Where should accommodation be located when the extent of the oil fields and related operations were uncertain? With the size of the permanent workforce likely to fall considerably after the initial construction phases, how much housing should be provided? Should priority be given to accommodating expatriate or local employees? How should scarce housing units be allocated?

This monograph uses a variety of archival material (memoranda, correspondence and annual reports) to examine oil company housing policies and problems. The first chapter describes population distribution and settlement patterns in the immediate pre-oil period. Chapter two details the characteristics and growth of employment, both local and expatriate, and the emergence of the accommodation problem. In chapter three we examine the varying impact of the oil industry on settlement patterns in Khuzestan, Al Hasa and the smaller Gulf states. The final chapter presents five short case studies which illustrate different aspects of the

accommodation problem and the different policy responses of particular oil companies. In examining these and other issues this monograph attempts to provide some insight into the oil companies' own perception of their role in the development of the local economy and society.

## 1. INTRODUCTION: POPULATION AND SETTLEMENT IN THE PRE- OIL PERIOD

This chapter briefly outlines the broad structure of settlement pattern and social organization in the Gulf in the late nineteenth and early twentieth centuries. Subsequent chapters will demonstrate the impact of the early oil industry on the pre-oil settlement system.

Lorimer<sup>1</sup> provides us with a vivid picture of the structure of Gulf society at the beginning of the twentieth century before the first discoveries of oil. His estimates suggest that the total population of Khuzestan (Arabistan) in Persia, the Ottoman province of Al Hasa, together with the Arab shaikhdoms on the southern shores of the Gulf, including the Sultanate of Oman, numbered some one and a quarter million, of which four-fifths were settled villagers and townspeople and one-fifth nomadic pastoralists (Table 1.1). Local responses to available natural resources in different parts of the region had produced surprisingly varied economic structures and settlement patterns.

The highest proportion of nomads in the population was found in Khuzestan and Al Hasa. The important tribes of Khuzestan were all Arab, with the notable exception of the Bakhtiari and Lur who migrated from the central Zagros to northern Khuzestan during the winter months and are therefore excluded from Lorimer's statistics. Nomads were most numerous in southern Khuzestan where they represented almost half of the total population. Over one third of the inhabitants of Al Hasa province were nomadic. The main tribal groupings included the Ajman, Bani Hajir, Al Morrah and the Bani Khalid, and certain bedouin tribes from Najd entered the province during the summer months.

Khuzestan and Al Hasa together with the Sultanate of Oman contained the largest settled agricultural population and all were weakly urbanised, especially Oman with only about 10 per cent of the population living in urban centres. Most of the settled population of Oman gained their livelihood from agriculture, notably from the cultivation of dates which provided the only significant export. The two major towns

Table 1.1: The Population of the Gulf Region at the beginning of the Twentieth Century

	Settled Population (Villagers & Townspeople)	Nomadic Population	Total
Khuzestan (Arabistan)	229,000	119,680	348,680
Bahrain	99,075	-	99,075
Al Hasa	101,000	57,000	158,000
4 Kuwait	37,000	13,000	50,000
Qatar	27,000	-	27,000
Trucial Oman	72,000	8,000	80,000
Oman (Sultanate)	471,650	30,000	501,650
Total	1,036,725	227,680	1,264,405

Source: The statistics are taken from Lorimer, J.G. (1908) Gazetteer of the Persian Gulf, 'Oman & Central Arabia, Calcutta : Superintendent Government Printing, India, Vol. 11 Geographical and Statistical.

were Matrah (14,000) and Muscat (10,000) and in both centres at least half of the inhabitants were Baluchis. In Al Hasa province the settled population, accounting for almost two-thirds of the total population, were concentrated in two large oases - Hasa and Qatīf. The settled population of Hasa oasis numbered some 67,000, Of these 33,500 lived in rural settlements, 25,000 in Hufūf, the major town and capital of the province, and 8,500 in Mubarraz, the second town. Whereas two-thirds of the rural population were Shia, the inhabitants of the two urban centres were predominantly Sunni Muslims. The population of the Qatīf oasis was smaller, numbering some 26,000; 5,000 in the town of Qatīf, 5,000 in the suburbs and 16,000 in the villages. Almost all the population were Shia. Dates were the staple crop in the two oases and provided the major export. Unlike the neighbouring Arab shaikhdoms, pearling was relatively unimportant and employed only 3,500 men. Little more than a quarter of the population were townspeople, and the major towns were marketing centres which served their agricultural hinterlands in the oases and engaged in trade with the interior of Arabia. In Khuzestan, some two-fifths of the population were settled agriculturalists, the highest proportion being found in the northern part of the province where the vast majority of the inhabitants were villagers. Wheat and barley were the most common crops in the north and in the south dates were grown in extensive irrigated gardens. The most important towns, Dezful (45,000) and Shūshtar (20,000), were located in northern Khuzestan and were centres of trade and manufacturing for the surrounding countryside. Mohammarah (5,000) on the Shatt al Arab, though much smaller in size, was accessible to ocean steamers and its key function lay in foreign commerce, rather than local trade and manufacturing. No pearl boats were based at Mohammarah nor at any other coastal settlement in Khuzestan.

In sharp contrast, Kuwait, Qatar, Bahrain and the shaikhdoms of Trucial Oman were virtually city states. Kuwait town, with 35,000 inhabitants, contained 70 per cent of the total population of the shaikhdom. The only area of permanent agriculture was around the village of Jahrah and the rest of the population were nomadic pastoralists. Pearling was the dominant activity of Kuwait town which in 1904



possessed 461 pearl boats carrying 9,200 men. Indeed a large number of Kuwaiti pearl fishers - 3,000 in 1905 - travelled to the pearl banks of Ceylon during the winter months instead of remaining at home to take part in the cold weather sea fisheries. In addition to pearling and sea fishing, the townspeople engaged in a lucrative transit trade supplying goods to Najd, Turkish Iraq and Persia, an activity on which the fortunes of the richest merchants in the town were based.

Pearling was the principal and almost the only source of livelihood for the inhabitants of Qatar. The gardens that did exist near some of the settlements were small and unproductive and only a few scattered nomadic groups lived permanently in Qatar, although tribes of pastoral nomads from Trucial Oman and Al Hasa migrated to the desert promontory in winter. Out of a total population which Lorimer estimated at 27,000, 12,000 were found in Doha, the capital, 8,000 in Wakrah and the rest in a number of scattered village settlements. Qatar's pearl fleet based in the two major towns and the coastal villages employed about 13,000 men and pearls were the only export of value.

The Bahrain Islands, situated midway between the Shatt al Arab and the entrance to the Gulf, had the most developed and diversified economy in the region. They were the principal pearl market of the Gulf and the commercial centre for trade with the mainland of Arabia. Pearling, which employed some 17,500 men, was the dominant activity of the four main towns, Manamah, Budaiya', Muharraq and Hidd, which together contained some 60,800 inhabitants, almost two-thirds of the total population of the islands. About 100 trading vessels travelled from these ports to other parts of the Gulf and even to India, South Arabia and Zanzibar while the local sea fisheries provided a livelihood for many of the coastal settlements. Whereas the townsfolk were predominantly Sunni Muslims, some two-thirds of the village population, numbering 38,275, were Shia. The Bahraini villagers cultivated large areas of land, all of which were irrigated from the abundant springs or from wells. Fruit and vegetables were the chief crops and there were extensive plantations of date palms.

In Trucial Oman, the very existence of the main coastal settlements was entirely dependent on pearl fishing and Dubai

was the chief pearl market of the Gulf after Bahrain. The population of the coastal towns and villages in the five shaikhdoms - Ajman, Abu Dhabi, Dubai, Umm al Qaywayn and Sharjah - numbered 72,000. Sharjah was the most populous shaikhdom with 45,000 inhabitants, almost two-thirds of the settled population. The main towns were Sharjah (15,000), Dubai (10,000), Abu Dhabi (6,000) and Umm al Qaywayn (5,000). During the summer months the coastal towns and villages were practically deserted and most of the able-bodied men, over 22,000, were absent at the pearl banks. Agricultural resources were strictly limited, though pastoral nomadism provided a livelihood for the tribal population of the interior, numbering some 8,000 people.

#### NOTES

1. Lorimer, 1908

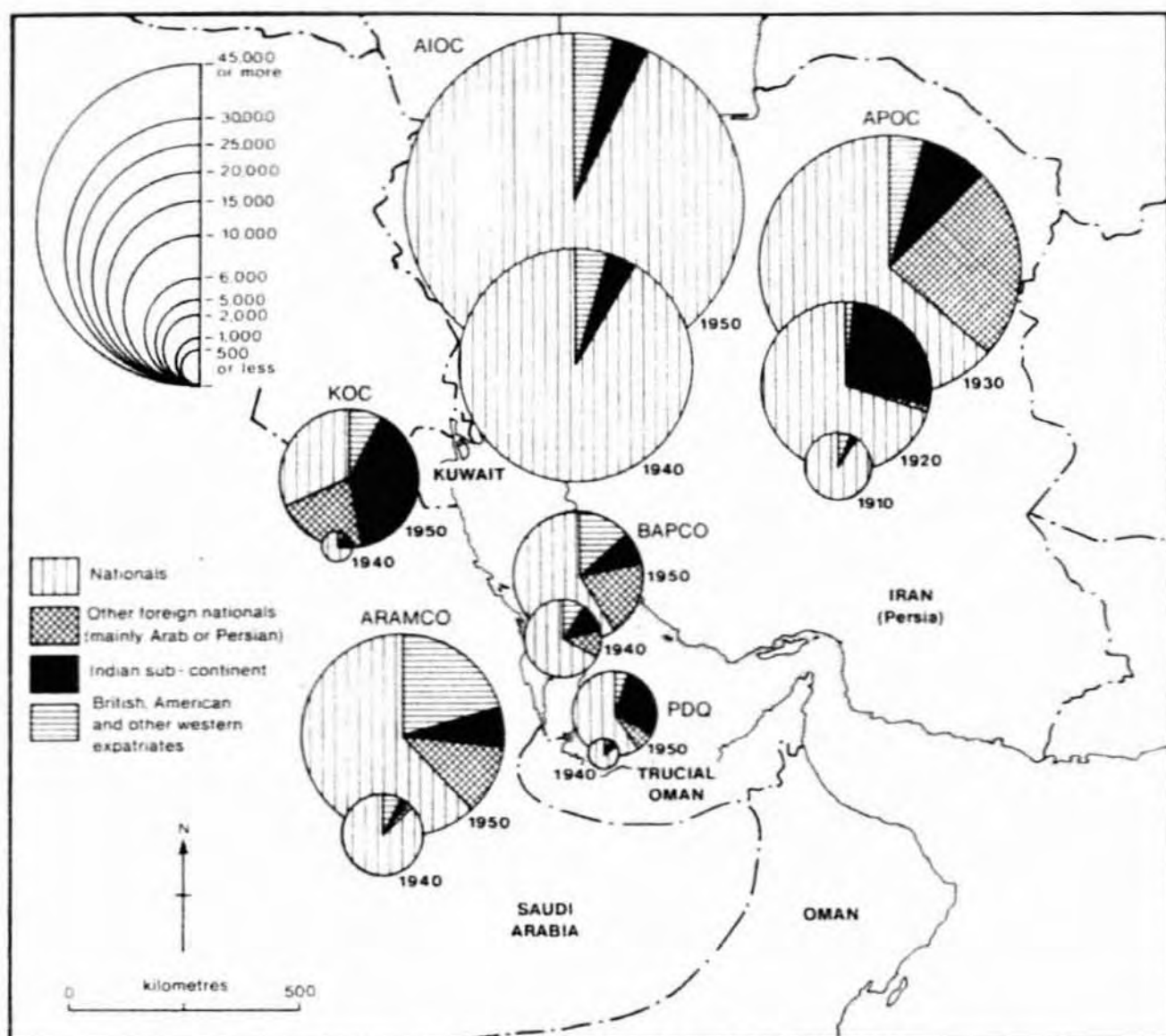
## **2. THE GROWTH OF OIL COMPANY EMPLOYMENT AND THE EMERGENCE OF THE ACCOMMODATION PROBLEM**

This chapter details the growth of company employment from the establishment of the industry in Persia during the early years of the twentieth century, through its diffusion to the Arab shore of the Gulf in the 1930s and the rapid developments of the post-war period. Particular attention is paid to the reliance of the oil companies on immigrant labour and the consequences of that immigration for the companies' housing policies (Figures 2.1, 2.2. & 2.3). Full data on employment growth is contained in Appendix A1-4.

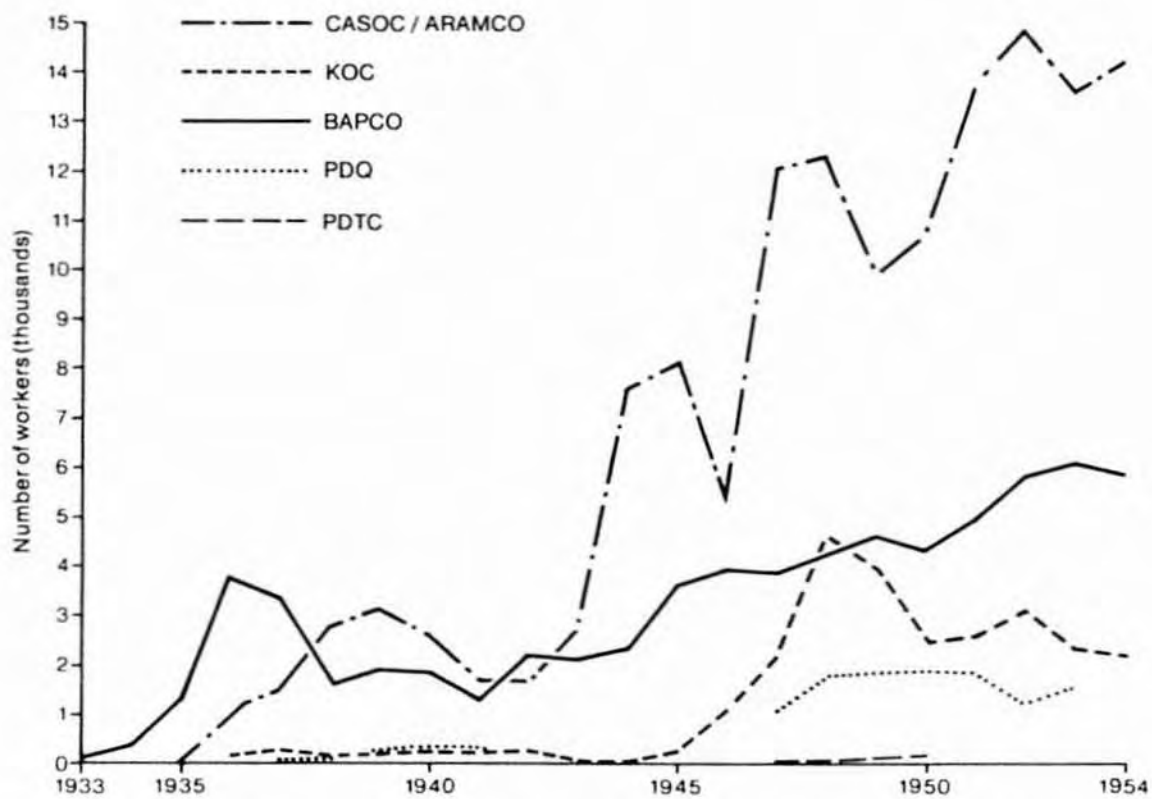
### **2.1 The establishment of the Gulf oil industry, Persia 1900-33**

Following the grant of an oil concession to D'Arcy by the Persian government in 1901, oil exploration began in south-west Persia. With the exception of the managerial staff and engineers the company's (Concessions Syndicate Ltd.) employees were largely Persian labourers recruited on a seasonal basis for basic construction and transportation activities. The discovery of oil at Masjed Soleymān (Figure 2.4) in 1908, and the subsequent formation of the Anglo-Persian Oil Company (APOC - later AIOC Anglo-Iranian Oil Company), brought an immediate change in the scale of operations. The construction of gathering lines, storage tanks, pipelines, workshops, accommodation and, from 1910, the Abadan refinery, demanded an enormous increase in the labour force. In January 1910 the company were employing some 1,362 'Persians' (no distinction was made between Persians and Arabs) as well as 350 expatriate (mainly British senior staff and Indian clerical) workers.<sup>1</sup> Major developments were undertaken during the 1914-18 war to meet the increased demand for oil and, by 1918, refinery capacity grew to over 1 million tons per annum. By 1919 total employment in the Persian oil industry stood at over 6,780 including almost 4,000 local workers. The end of the war saw the inauguration of an ambitious ten-year development

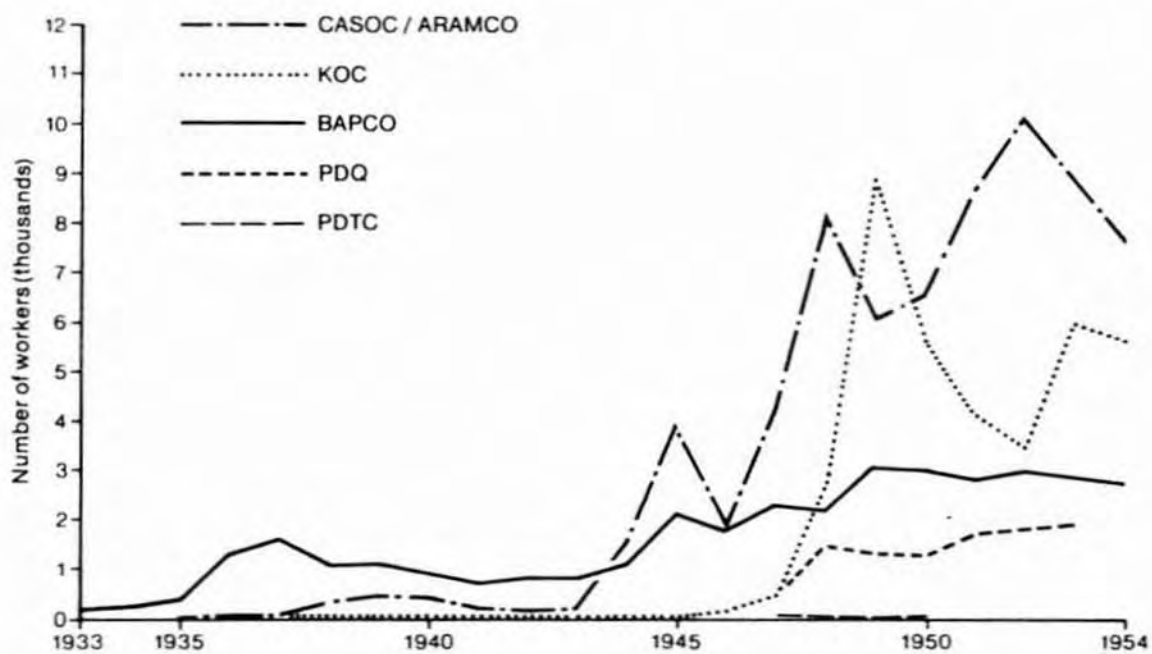




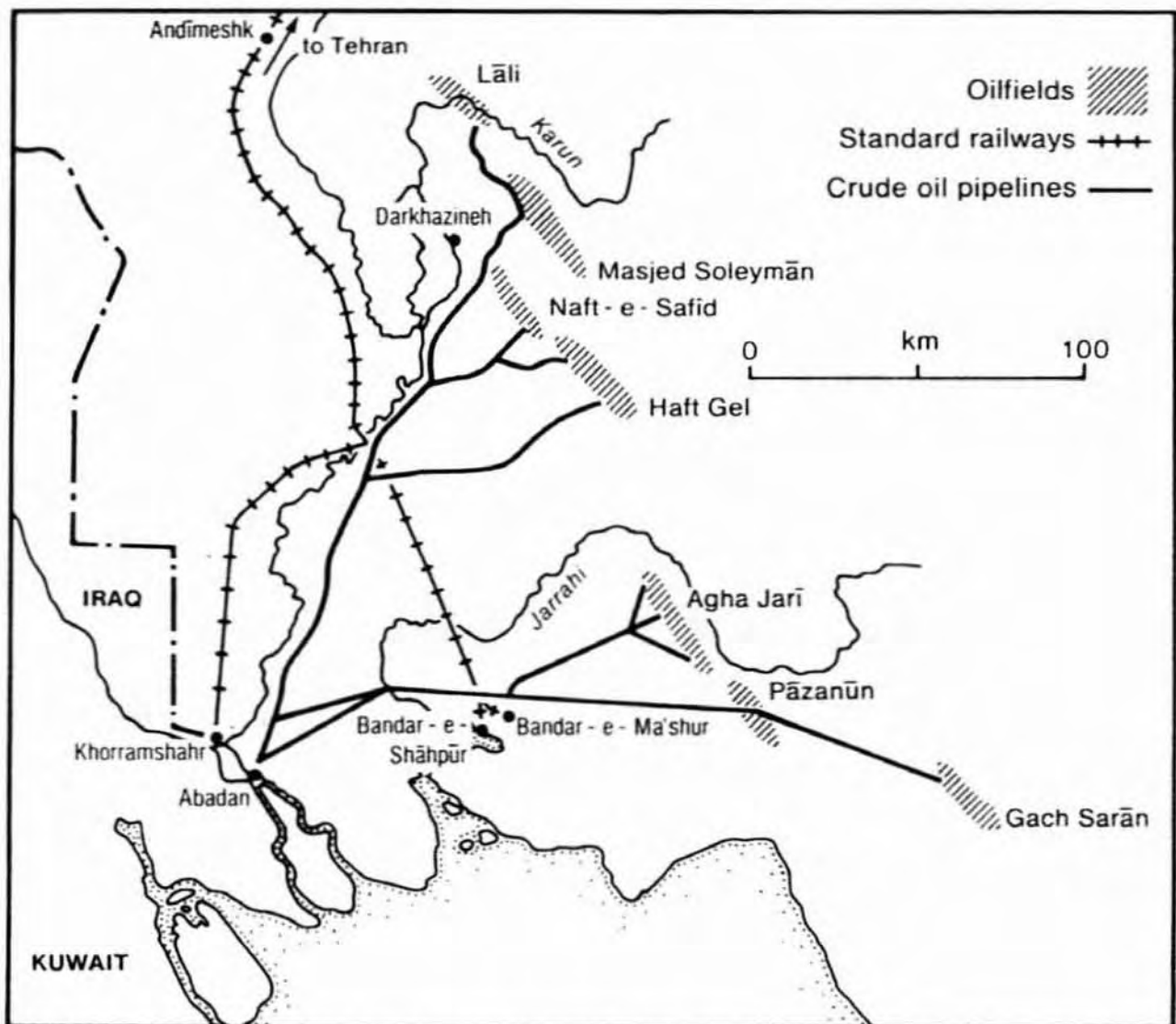
**Figure 2.1: Indigenous and Non-national Employment by Company 1910-50**



**Figure 2.2: Indigenous Employment by Company 1933-54**



**Figure 2.3: Non-national Employment by Company 1933-54**



**Figure 2.4: The Oilfields and Major Settlements in Khuzestan, Iran**

programme which increased refining capacity to 4.6 million tons per annum, the development of the Haft Gel field and the establishment of basic infrastructure. Local employment in APOC peaked at 20,762 in 1973 and total employment reached over 31,000 in 1930. With the completion of planned construction work and the onset of the 1929-31 depression the labour force fell sharply in the early 1930s. By 1932 APOC employed only 10,340 local workers and 4,510 expatriates. During 1932-33 the concession agreement was re-negotiated. The new agreement obliged the company to employ only Persian nationals for unskilled jobs (as in the original concession) but also provided that:

The company shall recruit its artisans as well as its technical and commercial staff from among Persian nationals to the extent that it shall find in Persia persons who possess the requisite competence and experience<sup>2</sup>.

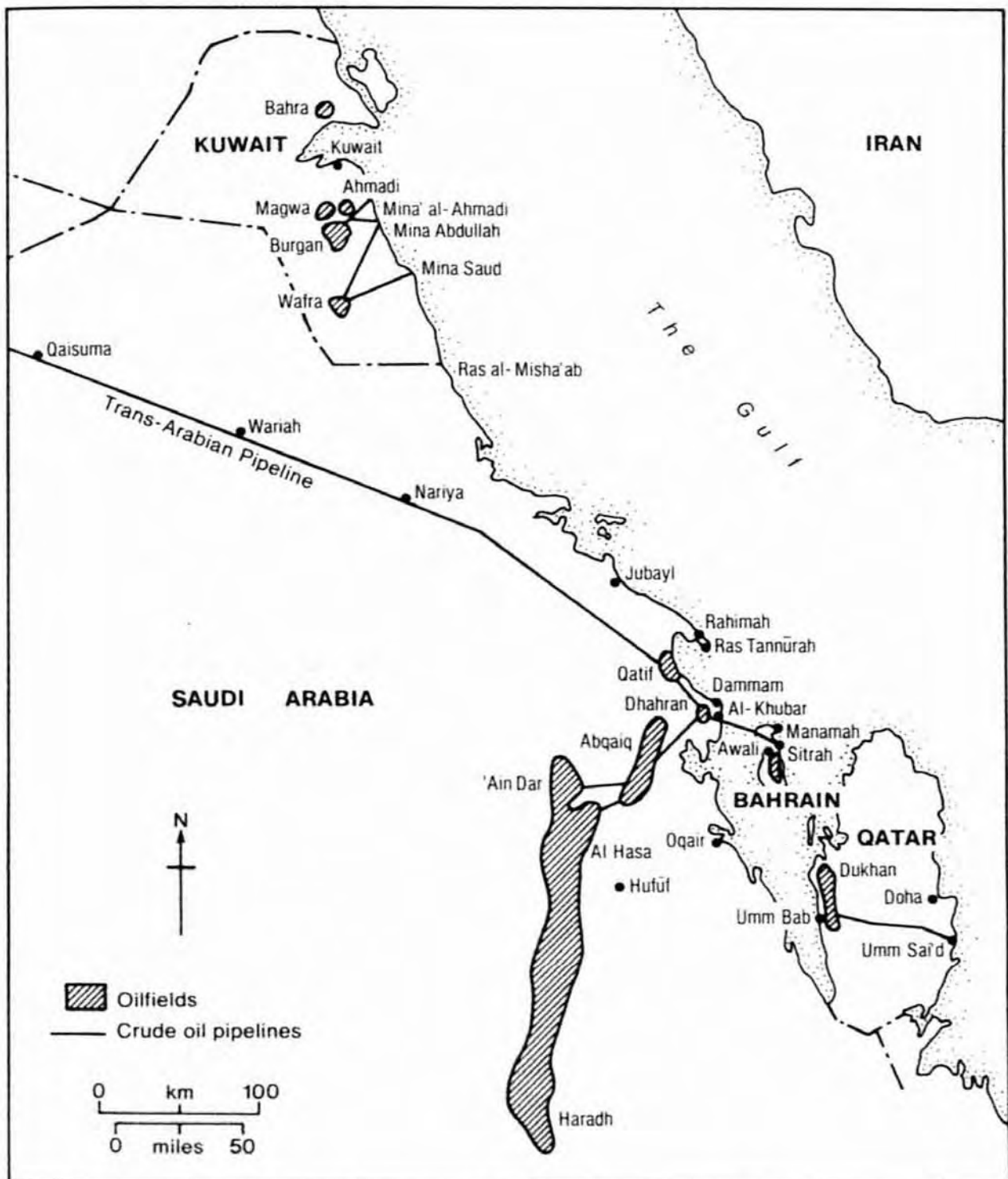
## 2.2 The growth in employment, 1933-1953

The two decades 1933-1953 can be subdivided into three distinct periods on the basis of developments in the level of oil company employment. These three periods are: (a) pre-war 1933-39, (b) the war years 1940-45 (c) post 1945.

### a. Pre-war 1933-39

Following the negotiation of the new concession agreement, which extended APOC's rights for a further 32 years, a new period of exploration was inaugurated in Iran. New fields were discovered at Lāli, Naft-e Safīd, Agha Jarī and Gach Sarān. During this period the employment of local labour reached a new peak (28,779) in 1939. However, the number of immigrant workers remained much lower than in the 1900-33 period in accordance with the new concession terms. By 1939 the number of expatriate workers in APOC was only 2,723.

The mid 1930s, which saw the establishment of the oil industry's basic infrastructure on the southern shores of the Gulf (Figure 2.5) in Bahrain and Al Hasa following successful oil strikes at Awali (May 1932) and at Dhahran (March 1938),



**Figure 2.5: The Oilfields and Major Settlements on the Southern Shores of the Gulf : Kuwait, Saudi Arabia, Bahrain & Qatar**

had a considerable impact on the local and regional labour markets.<sup>3</sup> Hitherto the oil companies had provided employment for only small numbers in exploration and test drilling. The period 1933-36 however saw the development in Bahrain of gas separation facilities and oil storage tanks, the laying of submarine pipelines, the construction of the marine terminal off Sitrah island and the completion (in 1937) and extension (in 1938) of the oil refinery.<sup>4</sup> Crude oil exports rose rapidly from 40,000 tons in 1934 to 620,000 tons in 1936 (see Table 2.1). The growth in employment was equally dramatic: from 613 in 1934 the Bahrain Petroleum Company's (BAPCO) labour force had expanded to 5,038 by 1936.

In Saudi Arabia the first drilling camp had been established at Dhahran in 1934 and the first major construction programme, which included the laying of pipelines from Dhahran to Al Khubar (for crude shipment to Bahrain) and Ras Tannūrah where a deep-water loading terminal was to be developed. Oil exports began in May 1939. Employment, which was less than 150 in 1935, grew from 1,600 in 1937 to 3,085 in 1938 and 3,641 in 1939.

The remaining two companies, the Kuwait Oil Company (KOC) and Petroleum Development Qatar (PDQ), employed relatively few workers in this period since neither had begun producing oil by the outbreak of the war. In Kuwait the first test well had been drilled at Bahra in May 1936, while the following winter saw a major geophysical research programme. The massive Burgan field was identified in April 1938 and plans for the production and export of oil were laid. Nevertheless total employment remained low, having increased to only 271 by December 1939. The situation in Qatar was much the same, though the arduous conditions and exceptional drilling difficulties made progress even slower. The company had to begin its operations by building a jetty at Zakrit to unload materials from its Bahrain base. It was not until December 1939 that the Dukhan field was located and the first well completed in January 1940. As in Kuwait, employment at the outbreak of the war was less than 300.

#### b. The war years 1940-45



**Table 2.1: Annual Oil Production, by Countries, 1912-59**  
(in millions of long tons)

Year	Persia/ Iran	Iraq	Bahrain	Saudi Arabia	Kuwait	Qatar	Kuwait Neutral zone
1912	0.04	-	-	-	-	-	-
1913	0.08	-	-	-	-	-	-
1914	0.27	-	-	-	-	-	-
1915	0.38	-	-	-	-	-	-
1916	0.45	-	-	-	-	-	-
1917	0.65	-	-	-	-	-	-
1918	0.89	-	-	-	-	-	-
1919	1.11	-	-	-	-	-	-
1920	1.38	-	-	-	-	-	-
1921	1.74	-	-	-	-	-	-
1922	2.32	-	-	-	-	-	-
1923	2.96	-	-	-	-	-	-
1924	3.71	-	-	-	-	-	-
1925	4.33	-	-	-	-	-	-
1926	4.56	-	-	-	-	-	-
1927	4.83	0.11	-	-	-	-	-
1928	5.36	0.11	-	-	-	-	-
1929	5.46	0.11	-	-	-	-	-
1930	5.94	0.12	-	-	-	-	-
1931	5.73	0.11	-	-	-	-	-
1932	6.45	0.10	-	-	-	-	-
1933	7.08	0.10	-	-	-	-	-
1934	7.54	1.06	0.04	-	-	-	-
1935	7.49	3.66	0.17	-	-	-	-
1936	8.20	4.02	0.62	-	-	-	-
1937	10.16	4.29	1.52	-	-	-	-
1938	10.19	4.32	1.11	-	-	-	-
1939	9.58	4.04	1.01	0.53	-	-	-
1940	8.62	2.65	0.94	0.68	-	-	-
1941	6.60	1.61	0.91	0.57	-	-	-
1942	9.40	3.25	0.84	0.59	-	-	-
1943	9.71	3.78	0.90	0.64	-	-	-
1944	13.27	4.25	0.91	1.05	-	-	-
1945	16.84	4.62	0.95	2.84	-	-	-
1946	19.19	4.60	1.10	7.99	0.80	-	-
1947	20.19	4.65	1.25	12.15	2.20	-	-
1948	24.87	3.40	1.50	18.95	6.30	-	-
1949	26.81	4.10	1.51	23.10	12.20	0.01	-
1950	31.75	6.50	1.51	25.90	17.00	1.62	-
1951	16.72	8.55	1.50	36.90	27.80	2.30	-
1952	0.75?	18.45	1.50	41.00	37.10	3.25	-
1953	0.75?	27.65	1.50	40.88	42.60	3.99	-
1954	3.00	30.08	1.50	46.13	46.90	4.70	0.83
1955	15.95	33.11	1.50	46.78	53.90	5.36	1.34
1956	26.05	30.82	1.50	47.93	54.10	5.78	1.58
1957	34.95	21.56	1.54	48.32	56.37	6.50	3.30
1958	39.95	35.15	2.00	49.35	69.10	8.09	4.20
1959	44.85	41.10	2.22	52.80	68.40	7.87	5.90

Source: Longrigg, S.H. (1961) Oil in the Middle East - its discovery and development London : University Press, Appendix 11

Development of the oilfields in Iran was brought to a halt at the outbreak of war with the loss of the company's market in Europe and the interruption of transport and supply routes. In 1941 however, British forces occupied the fields and with Japan's entry into the war demands on Abadan increased substantially. Massive expansion of the refinery and development of the Agha Jarī and Naft-e Safīd fields involved a considerable emergency construction programme and the expansion of the local labour force to 38,244 and of expatriates to 4,030, their highest level since 1932.

In the early years of the war, exploration and drilling in Bahrain and Saudi Arabia continued much as before. The California Arabian Standard Oil Company (CASOC - later the Arabian American Oil Company, ARAMCO) completed the Dhahran stabilization plant and located the Abqaiq field in November 1940. BAPCO entered the period with its refinery completed and all its major installations in operation. Surplus construction labour was already being shed on the outbreak of war, and total employment fell by 31 per cent between 1939 and 1941.

As the supply of essential materials became increasingly difficult, exploration and drilling operations in Saudi Arabia were gradually run down and work on a new refinery was terminated. In 1941 CASOC decided to reduce its American workforce; dependants and non-essential personnel were sent home as total American employment fell from 371 in February 1940 to 87 in 1942.<sup>5</sup> Overall, employment declined by nearly 50 per cent, from 3,641 in 1939 and 1,825 in 1942.

Operations in Kuwait and Qatar, neither of which had reached the production stage before the war, were suspended. In Qatar oil well denial measures were taken in 1940, field equipment was removed to Basra and all personnel were evacuated. In Kuwait operations ceased in 1942 and much equipment was removed to Abadan. KOC retained only a security and maintenance staff, of around 75, in Kuwait.

In 1943 however, the demands of the war in the Far East, particularly for aviation fuel, prompted the US government to authorise the construction of a new 50,000 b/d refinery at Ras Tannūrah in Saudi Arabia. The project, which was assigned high priority for shipping and material



requirements, also involved the construction of new storage tanks, loading lines, wharves and the laying of a second submarine pipeline to Bahrain as well as linking the Abqaiq field to Dhahran. Labour force expansion was dramatic, growing from 2,882 in 1943 to 9,060 in 1944 and 11,894 in 1945 when the new refinery came into partial operation.<sup>6</sup>

The later war years were also an opportunity for BAPCO to expand its refinery, to meet the processing requirements of the increased supply from Saudi Arabia. The Sitrah terminal was considerably expanded with the development of the T-shaped wharf, while the throughput capacity of the refinery was increased from 35,000 b/d in 1943 to 65,000 b/d in 1945. With this renewed construction activity, employment in BAPCO grew from 2,877 in 1943 to a new peak of 5,688 in 1945.

#### c. Post 1945

In Iran, further developments in the oil fields and expansion of the refinery in the post-war period increased local employment to over 60,330 by 1950. In addition to the company's direct employment, a further 16,410 (1949) Persians were employed by local contractors who carried out work for the company. Expatriate employment also increased in the post-war period, rising to 5,247 in 1950; but remained at less than eight per cent of the total workforce compared to more than 45 per cent in the mid-1970s.

The early post-war years saw the continued expansion of operations in Bahrain and Saudi Arabia. In the latter the Abqaiq, 'Ain Dar and Qatīf fields were developed together with the construction of further gathering, tankage and gas separation facilities. Pipelines were laid to link each field with the Ras Tannūrah refinery where capacity was increased to 150,000 b/d by 1952. With the exception of the brief retrenchment programme of 1949-50, employment continued to grow, reaching a new peak of 20,254 in 1948. Employment continued to increase in Bahrain (reaching 7,638 in 1949) where the refinery was further expanded to take advantage of the growing supply of Saudi crude.

The reinstatement of the Kuwaiti operations was ordered in early 1945. Because of KOC's joint Anglo-US ownership, it received priority as part of the Allied war

programme, and operations were resumed in October 1945. The rapid completion of gathering-lines, storage tanks and the temporary marine terminal at Fahahil were regarded as essential if KOC was to capture a significant share of the immediate post-war oil market. Oil production and export, which began in June 1946, grew from 0.8 million tons in 1946 to 2.19 million in 1947 and 6.3 million in 1948. In 1949 the new marine terminal at Mina' al Ahmadi was completed and the first 25,000 b/d refinery came on stream. As a result of this frenetic activity, total employment in KOC grew from only 266 in December 1945 to 2,634 in December 1947, 7,380 in December 1948 and reached a peak of 12,705 in December 1949.

In Qatar the Dukhan field required considerable reconstruction and the development of services. Drilling was not resumed until 1947 and oil exports did not begin until December 1949. Nevertheless, with the development of the Umm Sai'd terminal, employment expanded rapidly increasing from 1,560 in 1947 to 3,235 in 1948.

### **2.3 Employment and the concessions**

In keeping with the earlier D'Arcy concession in Persia (1901), each of the oil concession agreements for the Arabian shore of the Gulf, which were signed between 1930 and 1937, obliged the operating companies to employ local nationals as far as possible. This was considered essential by the local rulers because of the depressed state of the Gulf labour market following the precipitous decline in pearling, previously the region's main employer, since the mid-1920s. At the same time, however, the operating companies, recognizing the almost total lack of skilled/semi-skilled manual and clerical manpower in the local labour market, reserved the right to import and employ such foreign labour as was necessary for the efficient operation of their concessions. For example, article 17 of the 1935 concession for Qatar states that:

The labourers employed by the Company must be from amongst the Sheikh's own subjects or from amongst those approved by the Sheikh,

excepting technical employees and the managers and clerks whom the company may require and whom it cannot find in the country.<sup>7</sup>

In the earliest phases of the oil industry's development in the Gulf region, local labour tended to dominate. For example, in the years 1936-39 Kuwaiti nationals accounted for between 69 and 85 per cent of total employment. Similarly, in Saudi Arabia the proportion of nationals in the pre-war period ranged from 80 to 97 per cent. In Bahrain, however, reliance on a largely immigrant labour force arose early with the development of the refinery in 1936-38 when the company, despite the provisions of its agreement with HMG, employed a large number of Persians (see below). Here the proportion of nationals ranged from 74 per cent in 1936 to 61 per cent in 1938.

There is considerable evidence to suggest that, for all companies, these figures are inflated by the registration of foreign employees, particularly from other parts of the Gulf, as nationals. In Al Hasa, Saudi nationality certificates, which were a pre-requisite to obtaining direct employment with the company, could be purchased from the local police for only Rs. 3.00. As a result the CASOC/ARAMCO labour rosters show no employment of non-Saudi Gulf Arabs despite considerable anecdotal evidence to the contrary. In Bahrain the BAPCO labour roster for April 1934 records only 31 non-Bahraini Gulf Arabs compared to 280 Bahrainis; by April 1936 the number of Bahrainis had risen to 3,000 while there were still only 40 other Gulf Arabs. The real level of intra-Gulf migration and employment was undoubtedly much higher as Hugh Weightman's (Political Agent) report on the November 1938 strike indicated: "We believe that there are considerable numbers of Nejdis and Hasawis masquerading as Bahrainis and every effort is now being made to stop them."<sup>8</sup>

This lack of precision over nationality status was of course in the interests of the companies, given their commitment in the concession agreements to preferential recruitment and employment of nationals. The extensive use of labour contractors to recruit unskilled labour also reduced the extent of company control over the nationality composition of their workforce.<sup>9</sup> The problem is well



illustrated in the following note by Lermite (PDQ manager in Qatar) to Jackson (the Political Agent in Bahrain):

We wish to bring it to your notice that labour recruited in Doha nowadays includes a considerable proportion of non-Qatari subjects - Iranis, Baluchis, Omanis, Saudis etcetera. These labourers are all recruited by the representative to the Government of Qatar and sent to Dukhan camp as and when requested. In the majority of cases they are illiterate and possess no identity documents other than the green engagement chit issued by the representative...we would be grateful for your advice as to whether the Sheikh of Qatar has jurisdiction over these persons and to what extent they are to be considered as 'Qatari' subjects...<sup>10</sup>

In his report on a visit to PDQ in January 1949, Audsley noted that only 1,580 (58 per cent) of the 2,712 'Qataris' employed by the company were actually natives of the peninsula; the remainder were from Bahrain, the Trucial Coast, Oman and Balūchestan.<sup>11</sup>

In addition to the employment of labourers from non-oil areas of the Gulf, the development of the early oil industry led to two other patterns of labour movement into the region:

- (a) the recruitment of professional, technical and managerial manpower from Britain and the USA;
- (b) the inflow of skilled/semi-skilled artisans, clerical workers and domestic servants primarily, but not exclusively, from the Indian sub-continent.

Although the first category of expatriate workers were present, albeit in relatively small numbers, from the outset, the inflow of foreign artisans and clerical workers grew rapidly with the initiation of the emergency development programmes of the later war years.<sup>12</sup> By 1945 *recorded* non-nationals

accounted for 37 per cent of total employment in Bahrain and 32 per cent in Saudi Arabia. In Kuwait the expatriate share of employment grew from less than five per cent in 1945 to 38 per cent in 1948 and 68 per cent in 1949. The employment of foreign workers was also particularly significant in Qatar where they accounted for 46 per cent of employment in PDQ by 1948.

The right to import foreign labour which the concession agreements had given to the operating companies was clearly a potential contradiction of the British government's central policy of excluding foreign interests from the Gulf. British officials argued that, for example, if foreign nationals were massacred in Qatar by a tribal uprising then responsibility for securing effective punishment and compensation would fall on Britain as the imperial power. If those foreign nationals were also British subjects, then international complications and a challenge to British jurisdiction would be minimised. In the case of Bahrain the British were worried that BAPCO, to all intents and purposes an American company, would employ American personnel to operate the concession. An increase in the number of US citizens on the island would, it was believed, lead to pressure from the State Department for the opening of a US consulate. The latter would inevitably stimulate demands from Tehran for similar representation, thus reviving the question of Persian sovereignty over Bahrain. It was because of these fears that the British insisted on an additional clause in the schedule to the agreement transferring the Bahrain option from the Eastern & General Syndicate to BAPCO. Clause D of the schedule, which was to set a precedent in the conclusion of other oil agreements between the operating companies and the British government, specified that:

As many employees of the Bahrain Petroleum Company Ltd. in Bahrain as is consistent with the efficient carrying on of the undertaking shall at all times be British subjects or subjects of the Sheikh of Bahrain.<sup>13</sup>

The company's freedom to import foreign labour was thereby circumscribed by the provision that such employees should be British subjects.

In Kuwait the December 1934 concession agreement signed between the Sheikh and KOC was subservient to an earlier 'Political Agreement' made between the company and the British government. Despite the misgivings of the company's joint American owners,<sup>14</sup> a similarly restrictive (article 3) was inserted into the agreement of March 1934 which gave the Political Resident in the Gulf considerable control over the recruitment and employment of foreign nationals. This article specifies that:

The employees of the company in Kuwait shall at all times so far as it is consistent with the efficient carrying on of the undertaking be British subjects or subjects of the Sheikh. With the consent of this Majesty's Government, which consent shall not be unreasonably withheld, persons of other nationalities may be employed if in the opinion of the Company they are required for the efficient carrying on of the undertaking.

NOTWITHSTANDING anything contained in the Agreement between the Company and the Sheikh, the importation of foreign native labour shall be subject to the approval of the Political Resident in the Persian Gulf.<sup>15</sup>

Political agreements containing the same clause were concluded with the concessionary companies in Qatar, the Trucial Coast and Oman. Thus, while the concession agreements permitted the companies to import whatever foreign labour was necessary on commercial grounds, the political agreements ensured that the local British authorities retained their control over the nationality composition of the imported labour. As a result of these agreements, the foreign labour brought into the region by the oil companies was predominantly from the Indian sub-continent. Under the terms of the 1922 Indian Emigration Act, the companies were obliged to open recruiting offices in Bombay and to provide



their employees with standard Foreign Service Agreements authorised by the Protector of Emigrants. Although some Indians did find employment in the Gulf via informal channels, the majority were recruited and employed on a formal contract basis. Indian labour was mainly imported to fill technical, artisan and clerical positions; Goanese Indians were recruited as domestic servants. However, KOC also recruited semi-skilled and even unskilled Indian workers during its peak employment period of 1947-49 when Indian employment grew from 2,514 (August 1948) to 4,908 (December 1949).<sup>16</sup> In a number of years in the late 1940s KOC actually employed more Indians than it did locals. The dependence of the companies on India for skilled manual and clerical labour in particular is illustrated by Table 2.2 (KOC) and 2.3 (BAPCO).

By 1950 the oil companies (including AIOC) were employing about 8,000 immigrants from the Indian sub-continent. In addition, however, increasing numbers of Indians were employed in the growing non-oil labour market. For example, the 1950 census of Bahrain recorded 3,043 Indians and Pakistanis, while BAPCO employed only 650; similarly KOC employed only 40 per cent (3,199) of the almost 8,000 Indians and Pakistanis working in the Sheikdom in 1952.

In the absence of British control and of traditional links with the Indian sub-continent, the pattern of employment and immigration which emerged in the early Saudi oil industry was significantly different from that in the other Gulf states. Here the concession agreement, which was negotiated between the independent government of Saudi Arabia and the US company Standard Oil of California (SOCAL), provided (article 23) for the employment of Saudi Arab nationals "as far as practicable" under American direction and supervision. The article concludes: "...in so far as the company can find suitable Saudi Arab nationals it will not employ other nationals."<sup>17</sup>

The recruitment of foreign labour by the company was subject to the prior approval of the Ministry of Finance in Jiddah. The Saudi Arabian government was reluctant to permit the entry of large numbers of British Indians, and at their peak they represented only 15.8 per cent of the foreign





Table 2.3: Bahrain Petroleum Company: Indian<sup>1</sup> Employees by Occupational Group, 1939-48

Year <sup>2</sup>	<u>Clerical and Technical<sup>3</sup></u>			<u>Artisans</u>			<u>Domestics</u>			<u>General workers (GSU)</u>		
	Total employees	Indian no.	%	Total employees	Indian no.	%	Total employees	Indian no.	%	Total employees	Indian no.	%
1939	140	132	94.3	190	173	91.1	60	58	96.7	2,537	34	1.3
1940	143	133	93.0	168	154	91.7	46	44	95.7	1,985	27	1.4
1941	128	119	93.0	119	108	90.8	39	38	97.4	1,622	22	1.4
1942	119	109	91.6	95	87	91.6	42	41	97.6	2,698	10	0.4
1943	129	118	91.5	87	81	93.1	36	35	97.2	2,272	10	0.4
1944	191	170	89.0	201	196	97.5	64	63	98.4	2,647	15	0.6

	<u>Contract monthly and non-contract monthly paid</u>			<u>Contract daily paid</u>			<u>Non-contract daily paid</u>		
	Total employees	Indian no.	%	Total employees	Indian no.	%	Total employees	Indian no.	%
1945	n.a	222	-	n.a	476	-	n.a	9	-
1946	314	273	86.9	401	397	99.0	4,456	9	0.2
1947	351	295	84.0	363	361	99.5	3,915	4	0.1
1948	354	296	83.6	366	348	95.1	4,967	3	0.1

## Notes:

1. 'Indian' includes British Protected Persons (Indian states of Kalat and Sachin) and Portuguese Goans.
2. Data are for September (1939-43), March (1944-47) and April (1948).
3. Occupational groups as designated by BAPCO; prior to February 1939 employees were grouped as Class I, class II and class III.

Sources: Data are drawn from BAPCO's quarterly labour rosters submitted to the Political Agent, Bahrain. Returns for 1939-47 are in IOR L/PS/12/383 (for 1939 and 1940) and L/PS/12/384 (for 1941-47). Data for 1948 is taken from 'Report on a visit to Bahrain, January/February 1949' by M.T. Audsley (BMEC Cairo) in PRO FO 371/74942 E4934.

workforce. During the period of rapid expansion after 1944 ARAMCO's main source of artisan and skilled manual labour was the former Italian settler population in Eritrea. By 1946 the Italians were the largest group (1,700) of non-US foreign employees employed by the company (46.6 per cent).<sup>18</sup> At the same time the employment of US citizens grew rapidly, from 116 in December 1943 to over 1,200 by January 1946. In addition International Bechtel McCone, the main construction contractors, also had over a thousand skilled construction workers from the US in Saudi Arabia. The extensive use of American personnel proved very costly since they demanded high wages and high standards of living. Despite company efforts, turnover among the American personnel was excessively high, averaging over 30 per cent per annum in the late 1940s.<sup>19</sup> The Italians provided a cheap alternative.

With the end of the emergency expansion programme the Saudis became more reluctant to permit the continued employment of such a large non-Muslim group. Pressure on the company increased in mid-1947 after a three-week strike by Italian workers over their terms of employment and accommodation conditions. Later in 1947, the company opened recruiting offices in Khartoum and Aden which were to become important sources of skilled labour. A major shift in the company's foreign worker recruitment policy came in May 1949 when the management were informed of the King's desire that the company should employ at least one thousand Palestinian refugees.<sup>20</sup> Two months later the Finance Ministry informed the company that in future it should follow set priorities in its recruitment programme. Preference was to be given to: (1) Saudi nationals, (2) Palestinian refugees, (3) citizens of Arab League countries, (4) citizens of other Arab and Muslim countries.<sup>21</sup> In the same month the company opened an office in Beirut to recruit Palestinians; within twelve weeks that office had received more than 5,650 applications. By late 1950, as a result of the policies, non-Gulf Arab immigrants accounted for 46 per cent of ARAMCO's foreign (excluding US citizens) employees; a markedly different pattern compared to those companies operating in areas under British control.

## NOTES

- 1 Ferrier, 1982, 154
- 2 Finnie, 1958, 132
- 3 For a more detailed comparison of the growth of employment in Bahrain & Al Hasa see: Seccombe and Lawless, 1986a
- 4 On the chronology of developments in the Gulf oil industry see: Longrigg, 1961
- 5 For a discussion of CASOC/ARAMCO field personnel during the war years see: Anderson, 1981, 108-123
- 6 In January 1944 CASOC changed its name to the Arabian American Oil Company (ARAMCO)
- 7 OPEC, 1977
- 8 IOR R/15/2/176 Weightman (Political Agent Bahrain) to Fowle (Political Resident) 10 December 1938
- 9 Further discussion of this point will be found in: Seccombe and Lawless, 1986b
- 10 IOR R/15/2/865 Lermite (PDQ manager) to Jackson (Political Agent, Bahrain) 4 November 1947
- 11 PRO FO 371/74942 Audsley 'Report on a visit to Qatar, February 1949'
- 12 A detailed analysis of labour inflows will be found in: Seccombe & Lawless 1986c
- 13 IOR R/15/1/650 'Schedule of conditions'
- 14 For a detailed discussion of this question during the concession negotiations see: IOR L/PS/12/3808 minutes of meetings held at the India Office in January and February 1934
- 15 IOR R/15/5/247 'Political Agreement between His Majesty's Government in the United Kingdom and the Kuwait Oil Company, 5 March 1934'
- 16 For further discussion of Indian immigration and employment in the early Gulf oil industry see: Seccombe & Lawless, 1986c
- 17 OPEC, 1976
- 18 For a comprehensive discussion of Italian employment in Saudi Arabia see: Seccombe, 1986

- 19 US National Archives (NAA), Record Group (RG)84, Post Files Dhahran, box 6, file 863.6 William J. Handley 'Labor conditions in the Arabian American Oil Company', March 1948
- 20 NAA, RG 59 box 6958, file 890f. 504/5-3149. Francis Melog (Vice Consul, Dhahran) to Secretary of State Washington DC
- 21 NAA RG 59, box 6961, file 890f. 6363/7-1649, D.C. Bergus (American Embassy, Jiddah) to Secretary of State, Washington D.C, 16 July 1949



### 3. WORK CAMPS AND COMPANY TOWNS: THE IMPACT OF THE OIL INDUSTRY ON SETTLEMENT PATTERNS IN THE GULF

#### 3.1 Khuzestan, Iran.

In the second half of the nineteenth century, Khuzestan was one of the least developed provinces in Persia and the great majority of the population lived in absolute poverty. The pattern of resource utilization ranged from sedentary agriculture to pastoral nomadism, and in many cases a combination of the two. Local industry was very rudimentary and primitive. Exploitative systems of land tenure and taxation together with the prevailing insecurity did not favour the development of agriculture or the growth of trade. The unfavourable socio-economic conditions resulted in considerable emigration from the province to neighbouring Ottoman territories and even to India. Manpower shortages further inhibited development.

The opening of the Karun river to navigation in 1888, followed by the first discoveries of oil in 1908, brought profound socio-economic changes to Khuzestan.<sup>1</sup> The population of the province grew rapidly as a result of strong immigration: the total population increased from an estimated 180,000 in the 1880s, to 410,000 in the early 1920s, 543,000 in 1934 and 1,422,000 at the first national census in 1956.<sup>2</sup> In the early years in-migration was from two major sources: adjacent provinces such as Fars where depression of trade and insecurity of property encouraged people to emigrate, and neighbouring Turkish territory from which many migrated to avoid conscription. The first national census in 1956 revealed that a quarter of the population of the province had been born outside the census district in which they were enumerated (Table 3.1). Of the migrant group (344,034) some two thirds had been born in other provinces, notably Yazd (33 per cent) and Bandar and Fars (13 per cent).

The two principal trends in the demographic development of the province during the first half of the twentieth century were (i) the increase in the number of sedentarized as opposed to tribal and nomadic peoples, and (ii)

Table 3.1: Khuzestan: Lifetime Migration by Census District of Residence &amp; Ostan of Birth November 1956

Census District & Province of residence November 1956	Population	Non- migrants	Total migrants	Ostan of birth					
				Central Province	Gilan	Mazandaran and Gorgan	East Azarbaijan	West Azarbaijan	Kermanshahan
Abadan	283,601	161,002	119,287	3,605	2,685	342	1,498	891	4,845
Ahvāz	212,953	150,901	61,202	4,005	2,431	465	1,397	245	2,712
Behbedān	174,415	161,155	13,178	475	216	77	232	42	460
Dashte Mishan	91,991	90,548	1,390	103	39	4	57	5	66
Dezfūl	180,460	143,514	36,638	1,266	622	202	427	181	473
Khorramshahr	67,658	44,929	22,055	1,319	886	120	559	101	944
Masjed Soleyman	169,640	135,261	33,696	437	191	38	161	94	377
Rāmhormoz	76,558	67,871	8,560	105	95	7	34	19	79
Shadegan	117,140	86,382	30,544	563	415	51	342	88	1,227
Shūshtar	57,333	54,767	2,543	80	34	7	57	2	92

	Kordestan	Ostan of birth				Yazd & Esfahān	Sistan & Balūchestan	Foreign born	Place of birth not reported
		Khuzestan & Lorestan	Bandar & Fars	Kerman	Khorāsān				
Abadan	300	28,331	27,977	4,565	971	42,844	433	2,675	637
Ahvāz	162	31,991	2,208	212	582	14,737	55	710	140
Behbedān	64	1,968	8,408	118	88	1,011	19	40	42
Dashte Mishan	4	863	40	15	15	176	3	29	24
Dezfūl	13	21,568	130	49	177	11,530	-	95	213
Khorramshahr	66	10,755	2,382	1,531	794	2,532	66	644	30
Masjed Soleyman	42	6,633	338	1,051	166	24,161	7	318	365
Rāmhormoz	15	4,729	251	30	20	3,173	3	61	66
Shadegan	16	16,102	2,560	1,502	424	7,047	207	184	30
Shūshtar	-	1,214	15	5	24	1,103	-	10	13

Source: National & Province Statistics of the First Census of Iran, November 1956, Tehran Ministry of Interior, 1961, Volume II, Social & economic characteristics of the inhabitants for Iran and the census provinces, p.163.



rapid urbanization and the emergence of towns with large populations in the southern parts of the province. Until the opening of the Karun river, the province was weakly urbanised and the only settlements that could be defined as towns were Dezful and Shushtar, the provincial capital. The opening of the Karun to navigation, however, circumvented the traditional urban centres and population was attracted to the new centres of economic activity which were in the south. In particular, the two river ports of Mohammarah and Ahvaz experienced rapid population growth: Mohammarah increased from 3,000 inhabitants in 1882 to 12,000 in 1916, Ahvaz which was merely a village of 300 inhabitants in 1882, developed into a town of 4,000 people by 1916 (Table 3.2). Dezful and Shushtar, on the other hand, declined in importance and in population and many of their tradesmen and merchants emigrated to the south, especially to Ahvaz. The population of Dezful for example, estimated at 20,000 in 1882 had declined to 15,000 by 1916; a similar trend is discernible at Shushtar.

The discovery of oil in 1908, and the subsequent development of the oilfields, accelerated the urbanization process, reinforced the new settlement pattern and added new elements to the emerging urban system of Khuzestan. The growing volume of traffic along the Karun river associated with oil exploration and development further stimulated the expansion of the ports of Mohammarah (renamed Khorramshahr) and Ahvaz. Until 1923, supplies for the oilfields at Masjed Soleyman in the southern foothills of the Zagros were brought by ship to Khorramshahr at the mouth of the Karun and Shatt al Arab estuary, and from there were carried in barges 184 km up the Karun to the river port of Ahvaz, where they had to be unloaded for a portage of about one and a half kilometres to circumvent the rapids. At first this portage was carried out by wagon but these were soon replaced by a narrow-gauge railway. Smaller barges continued the journey to Darkhazineh, 145 km up-river and the last 40 km to Masjed Soleyman was undertaken by mule-drawn wagons. A narrow-gauge railway was constructed from Darkhazineh to Masjed Soleyman in 1923. In order to improve the unloading of cargoes at Khorramshahr, the Iranian government in 1914 exchanged Chiah Surkh and other border

Table 3.2: The Population of Urban Centres in Khuzestan, 1882-1956

	1882	1890	1916	1934	1956
Abadan	-	-	-	61,000*	226,083
Agha Jarī	-	-	-	-	24,195
Ahvāz	300	1,000	4,000	30,000+	120,098
Bandar-e Ma'shūr	-	-	-	1,000	15,694
Bandar-e Shāhpūr	-	-	-	-	8,284
Behbedān	-	-	-	-	29,886
Dasht-e Mishan	-	-	-	-	6,025
Dezfūl	20,000	25-30,000	15,000	50-60,000	52,121
Fallahiyeh	650-1150	2,500	1,500	-	-
Haft Gel	-	-	-	-	7,693
Khorramshahr (Mohammarah)	3,000	6,000	12,000	30,000	43,850
Masjed Soleymān	-	-	-	-	44,651
Naft-e Safīd	-	-	-	-	6,183
Rāmhormoz	-	-	-	-	7,258
Shūshtar	10,000	22,000	10,000	20,000	18,527

\*1937

+1939

Source:

Figures for 1882, 1890 & 1916 Shahnavaż, S. Britain & the opening of the Karun river circa 1873-1910 (unpublished thesis submitted for the Degree of Doctor of Philosophy, University of Oxford, 1980).

1934 Persia : Geographical Handbook Series, Naval Intelligence Division, September 1945

1956 National & Province Statistics of the First Census of Iran, November 1956, Tehran, Ministry of Interior, 1961, Volume 1 Number and distribution of the inhabitants for Iran & the census provinces. p.18-20

territory further north for about eight square kilometres of Turkish territorial waters in the Shatt al Arab on the Karun. The new port of Khorramshahr developed here, catering almost entirely for the requirements of the oil industry.

In order to export the oil, a pipeline to the Shatt al Arab was completed in 1911. The pipeline and tanker terminal and a refinery were built on a virtually uninhabited island to the south of Khorramshahr. The refinery area, the town that developed adjacent to it and the island itself became known as Abadan. At Masjed Soleymān, the centre of the oilfields and producing area, a new town emerged containing company stores and workshops, new housing areas, a company-built bazaar and a hospital. Electric power supply was secured by a new power station at Tembi. By the 1920s Ahvāz, which was pipeline headquarters before 1930, served as the main station for stores, workshops, river and road transport, with a company hospital and a large European community. In 1926 the town replaced Shūshtar as provincial capital of Khuzestan. By the mid 1930s these four towns, Abadan, Ahvāz, Khorramshahr and Masjed Soleymān, had come to dominate the urban system of Khuzestan (Table 3.2). The most spectacular urban growth occurred at Abadan where, in the course of little more than 25 years, a settlement of over 60,000 inhabitants had emerged alongside the world's largest refinery.

The extensive schemes for development of the oilfields and refinery, planned after the new concession agreement was concluded in 1933, were brought to a halt by the outbreak of the Second World War in 1939. Until 1930 all oil production had come from the Masjed Soleymān field. In that year the Haft Gel field, 56 km south-south-east of Masjed Soleymān, joined it in production, but although new oilfields had been discovered at Lāli, Naft-e Safīd, Agha Jarī and Gach Sarān during the 1930s, the company was forced to suspend work on their development and concentrate on security measures. The additional housing projects that were in hand for the old fields and Abadan were also suspended at this time. Transport, supplies and foreign recruitment were interrupted because of the hostilities, major markets for oil products were lost and production declined.<sup>3</sup>



The British military occupation of southern Persia in 1941 and the wartime demand for petroleum products to supply Allied forces in the Middle East and Far East inaugurated a new period of expansion in oil production which could only be achieved by the development of the new oilfields discovered before the war.<sup>4</sup> Nevertheless Masjed Soleyman remained the administrative headquarters of the oilfields. With its great workshops and stores, laboratories and research institutions, offices, clubs, hospital and residential quarters, where a large part of its 6,000 employees were housed, it was the most complete and mature of the company's settlements outside Abadan. The new settlements of Naft-e Safid and Haft Gel were very small and only Agha Jari experienced significant development. In 1951 it contained its own hospital and industrial area with important stores and workshops and employed the largest concentration of labour - some 3,500 - outside Abadan and Masjed Soleyman. Because of the distance of Agha Jari and Gach Saran from Abadan, a new tanker terminal was constructed at Bandar-e Ma'shur on the Khur Musa sea inlet, sixteen kilometres above the railway port of Bandar-e Shahpur, the terminus of the Trans-Iranian Railway opened in 1938. Equipped to handle tankers of 40,000 tons, the new terminal was opened in 1948 and provided with housing for 1,000 employees and their families. During the war the Trans-Iranian Railway had been extended to Khorramshahr so that the river Karun was abandoned by the company for water transport in 1950 in favour of exclusive use of road and rail communications.

The first national census in 1956 provides us with a clear picture of the urban system of Khuzestan. Before that date, population statistics were mainly a matter of conjecture and although population estimates for individual towns were made by municipal officials, they were rarely published. By 1956 Khuzestan was one of the most urbanized provinces in Iran, with over two-fifths of the population living in settlements of more than 5,000 inhabitants. Abadan, which had more than doubled in size during the preceding decade, dominated the urban system. With a population of 226,083 in 1956 (Table 3.2) Abadan contained 37 per cent of the urban population of Khuzestan. Ahvaz, the second city, had experienced even more dramatic growth, quadrupling in size

from an estimated 30,000 in 1939 to 120,000 in 1956. Abadan and Ahvāz together contained 56 per cent of the province's urban population. Khorramshahr and Masjed Soleyman, on the other hand, had experienced more modest growth. Khorramshahr in particular grew slowly from an estimated 30,000 in 1934 to only 43,850 in 1956. Of the new centres created during the postwar expansion of the oil industry Naft-e Safīd and Haft Gel remained very small settlements and only Agha Jarī (24,195 inhab. in 1956) experienced substantial growth. The traditional centres of the pre-oil era had been completely eclipsed by 1956. Shūshtar once the provincial capital, had declined from 20,000 in 1934 to 18,527 in 1956; Dezful had stagnated, recording a population of 52,121 in 1956 compared with an estimated 50-60,000 in 1934.

Migration played a key role in the growth of the oil towns which were essentially immigrant communities. This was confirmed by the 1956 census questionnaire on lifetime migration. It revealed that migrants accounted for 52 per cent of the population of Abadan, and a large proportion of Ahvāz (46 per cent), Khorramshahr (43 per cent), and Masjed Soleyman (33 per cent).

### **3.2 Al Hasa, Saudi Arabia**

Oil exploration and development also brought about a restructuring of the settlement system in Al Hasa, the eastern province of Saudi Arabia, but the scale of change was more modest and the new pattern that emerged there was more balanced than in Khuzestan and did not display the strong urban primacy achieved by the city of Abadan.

The province of Al Hasa had been incorporated into the state, later known as Saudi Arabia, created by the energetic 'Abdul 'Aziz ibn Sa'ud, in 1913 after a period under Ottoman rule. By the early 1930s its economy, based mainly on date production from the two principal oases, Al Hasa and Qatīf, together with traditional fishing and pearling in the waters of the Gulf, was in decline. There was only one principal city, Hufūf, the capital, located inland from the Gulf at the centre of the large Al Hasa oasis which originally gave its name to the region. Mubarrāz, the only other town in the oasis, was situated a few kilometres away. The oasis was



served by the small port of Oqair 129 km away in the Gulf which also acted as the principal seaport for central Arabia. Some 209 km further north, extending along the western coast of Tarut Bay was the Qaṭīf oasis, the other large oasis in the region, which contained the fortified town of Qaṭīf. Dammam, on the south side of Tarut Bay, was a small fishing village at that time, while further north was the small port of Jubayl. Estimates suggest that the total settled population of the province did not exceed 200,000 in the early 1930s.

Jubayl was the first headquarters of the oil company geologists who came from Bahrain to begin exploration in 1933. They travelled south some 90 km to a hilly area known as Jebel Dhahran and there set up their first oil camp. The oilfield crews found the small coastal settlements of Jubayl and Oqair unattractive and for reasons of health and security the company decided to establish its camp away from the existing settlements. In order to handle incoming materials and supplies, in 1935 the company began building a pier at Al Khubar 10 km east of Dhahran camp, and a small permanent settlement quickly grew up there. Close proximity to the main oil town attracted many traders to the new settlement.

The first Dhahran well was spudded in in 1935 and commercial production began in 1938. A six-inch pipeline was laid to the coast at Al Khubar from which the oil was shipped in barges to Bahrain. But Al Khubar port with its shallow offshore approaches was unsuitable for shipping large quantities of oil in larger vessels and a new site had to be found. Ras Tannūrah, a low spit of land separating the north-eastern part of Tarut Bay from the Gulf, was selected as the new tanker terminal, and a second camp was established there. The channel leading inshore was marked, tankage was erected and a loading jetty and submarine lines were constructed. With the completion of a 10-inch pipeline from the oilfields, the first exports took place in 1939. During the Second World War, the requirements of the war in the Far East led to the decision to construct a major refinery at Ras Tannūrah. The refinery came on stream in 1945 with an initial capacity of 50,000 b/d and was expanded to 200,000 b/d in 1952.

A new oilfield at Abqaiq, 65 km to the south-west of Dhahran, discovered in 1940, was brought into production in 1945 and a third oil camp was established there. Oil was later

found near Qatīf (1945) at 'Ain Dar (1948) 40 km south-west of Abqaiq and at Haradh, 258 km southwest of Dhahran but no new camps were built. The decision to build the Trans-Arabian Pipeline (Tapline) led to the construction in 1947 of a deepwater wharf on an artificial island five kilometres into the Gulf off Ras al Misha'ab. It became the chief port and depot for the pipeline project which was completed in 1950. The construction of Tapline was accompanied by the appearance of a number of new settlements. At the new pumping stations along the pipeline, Nariya (Nu'airiya), Qaisuma, Rafha, Badanah and Turaif, the company was obliged to build completely new and virtually selfsufficient communities to house the expatriate and Saudi employees, including housing, hospitals, schools, repair shops, recreation facilities and airstrips. Around each station a new town developed with a suq or market to supply the surrounding district. Badanah, for example, grew to a settlement of 3,000 inhabitants by 1955, only five years after its foundation.

As the construction of oil facilities expanded after the Second World War, the port of Al Khubar proved inadequate to handle the volume of heavy materials that were being imported. A new location just east of the small fishing village of Dammam was chosen for the construction of a new deep water port. The port, extending 11 km into Tarut Bay, was built between 1948 and 1951 under the direction of the Saudi Arabian Government and was connected to the mainland by a railway which was soon extended 550 km via Abqaiq and Hufūf to the capital, Riyadh. As the main Gulf port and railway terminus, Dammam experienced rapid growth and quickly became the most important town in the province.<sup>5</sup>

The development of the oil industry and the growth of new settlements occurred some distance away from the existing population centres in the province. Nevertheless, the impact of the oil industry and related activities on these traditional communities was profound. Many farmers from the oases were attracted to the oilfields and owing to labour shortages in these traditional agricultural areas the amount of land under cultivation declined dramatically. According to the ARAMCO census of 1954, almost two-thirds of the company's Saudi employees came from the two oases, over 45 per cent from Al Hasa oasis alone (Table 3.3) and these figures

**Table 3.3: Origins of Saudi Arabian Employees - Aramco Census 1954**

Birthplace	Number of employees
Al Hasa oasis	3,827
Dammam	194
Al Khubar	84
Qatīf	1,840
Syhat	739
Safwa	287
Tarut	330
Jubayl	356
Other centres in Eastern Province	698
Total Eastern Province	8,355
Other provinces	5,177
Total all provinces	13,532



do not include those who migrated to seek work in the oilfields but were not employed directly by the company. Furthermore, the census reveals that almost all of the Company's employees from the oases were young men under 35 years of age, leaving only the very young and the old to care for the date gardens. At the same time, Al Hasa's role as an entrepot for trade with central Arabia declined. For centuries most of the trade with central Arabia had come via the port of Qair through Al Hasa oasis. The construction of a major new port at Dammam linked to Riyadh by rail resulted in the decline and neglect of the old port of Qair, while the commercial activities of Hufūf and those villages which lay on the old caravan routes suffered accordingly, with many trade agents moving their offices from Hufūf to Dammam. Qatīf also lost its former monopoly as port for the northern part of the province. This shift in the centre of gravity in the province away from the traditional centres to the new oil towns was clearly acknowledged in 1953 when the administrative capital of Eastern Province was transferred from Hufūf to Dammam. Deprived of their traditional functions, both Hufūf and Qatīf grew slowly during this period. Hufūf from 50,000 in 1935 to 55,000 in 1951, and Qatīf from 6,000 in 1934 to 8,000 in 1950.

As the scale of oil industry activities increased and the workforce expanded, the temporary field camps were developed into permanent towns. ARAMCO planned and built a new town on the American pattern next to each camp. These new towns contained thousands of bungalows, each set in their own garden, for the American employees and their families, and they were equipped with cinemas, clubhouses, swimming pools, tennis courts and other recreational facilities. The Saudi employees on the other hand were accommodated in bachelor dormitories and given transport to and from their family homes at weekends. Employees from more distant places could normally return home only during the vacations. Yet in spite of an extensive building programme after the Second World War, by 1952, when direct employment in ARAMCO reached a peak of 24,838, there were acute housing shortages. Some migrants to the oil towns occupied any available land around and erected their own tents and houses leading to the creation of shanty towns.

In response to this problem, ARAMCO in 1953 introduced a Home Ownership Programme for its employees. Rather than build, operate and maintain housing areas in the oil towns for its Saudi employees, it began to encourage them to build or purchase houses in existing communities in the province. By that time the company had built surfaced roads linking the oilfields to the towns of Al Khubar and Dammam and travel between these places was no longer difficult. First in Dammam and then in Al Khubar the company developed building lots on land provided by the Government for free distribution to employees. Later, improved facilities in Al Hasa and Qatīf encouraged employees of the company to settle there with their families (Table 3.4). Because Ras Tannūrah and Abqaiq were some distance from existing communities, the company built new towns next to each of these camps. Construction began at Rahimah near Ras Tannūrah in 1952 and at Madinet Abqaiq near Abqaiq camp in 1956. By 1960 these towns had populations of 4,000 and 1,500 respectively.

The three oil towns grew rapidly after the Second World War until the early 1950s and then experienced a decline in population. After 1952 the Company workforce was reduced in size and most of the Saudi Arabian employees preferred to buy their own homes through the home ownership programme either in Dammam or Al Khubar. Thus many employees formerly living in bachelor quarters in the oil towns moved to new family homes in Al Khubar and Dammam. Dhahran, which became the central headquarters of ARAMCO in 1953, had the largest population of the three oil towns. It grew from a camp with a few hundred workers in the late 1930s to a town of 12,444 in 1954. During the next five years however it declined to 9,416 in 1959. Ras Tannūrah, the refinery centre and main oil port, and Abqaiq, the most important production site, experienced a similar decline during this period: Ras Tannūrah from 6,643 inhabitants in 1954 to 5,521 in 1959, and Abqaiq from 6,649 to 5,344 (Table 3.5). The population of Dammam, on the other hand, which grew to become the major administrative, commercial and industrial centre of the eastern province, increased rapidly throughout this period from 1,350 in 1935 to 35,408 in 1962/63. Al Khubar, though it lost its modern port functions to Ras Tannūrah and Dammam, developed to



**Table 3.4: Saudi Employees : Location of Household Residence, 1962**

Location of Residence	Estimated No of Employees	%
Qatīf oasis	3,473	32.4
Al Hasa oasis	2,710	25.3
Company town sites	1,736	16.2
Dammam	974	9.1
Al Khubar	1,101	10.3
Tarut	466	4.3
Others	254	2.4
Total	10,714	100.00

Source: Al-Shuaiby, A.M. The development of the Eastern Province with particular reference to urban settlement and evolution in eastern Saudi Arabia (unpublished Ph.D. thesis, University of Durham, 1976), p.259

**Table 3.5: Population of the Three Oil Towns 1954 & 1959**

Town		Number of Employees	Number of family residents	Total
Dhahran	1954	10,544	1,900	12,444
	1959	7,407	2,009	9,416
Ras Tannūrah	1954	5,882	761	6,643
	1959	4,517	1,004	5,521
Abqaiq	1954	5,721	928	6,649
	1959	4,443	901	5,344

Source: Al-Shuaiby, A.M. The development of the Eastern Province with particular reference to urban settlement and evolution in eastern Saudi Arabia (unpublished Ph.D. thesis, University of Durham, 1976), p.360.

become the major retail shopping centre for oil company workers in the province. It experienced rapid growth between 1934 and 1951 when the population rose from 75 to 13,000, followed by a period of more modest growth to 23,492 by 1962/63.

### 3.3. Bahrain, Kuwait and Qatar

In the shaikhdoms of Bahrain, Kuwait and Qatar, the oil industry did not lead to the emergence of new towns that challenged the role of the traditional urban centres as in Khuzestan and Al Hasa. Prior to the discovery of oil, the shaikhdoms were essentially small city states, each with only one or two major towns. The oil companies' activities and employment were on a much smaller scale than in Khuzestan and Al Hasa, and in most cases the oil installations were located a relatively short distance from the major population centres. It was therefore possible for the companies to adopt a policy of busing workers from existing settlements to the oilfields, so that the company towns that were constructed housed almost exclusively expatriate workers and did not attract many local people.

In Bahrain the first oil camp was set up in 1931 to the north of the well site at the foot of the Jebel Dukhan, and during the course of its construction the early oil men found quarters in Manamah, the capital, some 24 km away and travelled to the site every day. The first living quarters were nissen huts, later insulated by plastering the outside with a thick coat of mud as protection from the heat, and similar buildings were used as a mess-hall and recreation room. A dispensary, garage, tool house and power plant were added. When the first families arrived, they were accommodated in the nissen huts and a dormitory (bunkhouse), built of local materials using masonry, *farrush* and *gutch*, was completed for the bachelors.<sup>6</sup>

With the discovery of oil in commercial quantities, plans were prepared for the construction of export facilities. Because of shallow water around the Bahrain coasts, the choice of site was limited and Sitrah was eventually selected. The nearest place to deep water was the east coast of Sitrah island accessible only by fords across the channel which

separated it from the mainland. A pipeline was laid from the oilfield to deep water, and three storage tanks and a pumphouse were constructed at Sitrah. Incoming cargo from freighters was transferred to barges and landed at a rockbuilt pier.

By 1934 the company's employees had outgrown Jebel Camp and a decision was made to build a permanent camp, five kilometres to the north. The new camp, officially named Awali, was located midway between the oilfield and the site chosen for the refinery six kilometres away. The settlement plan was a simple one consisting of living quarters built on high ground and the office and industrial area located below. The new camp was completed in 1937 when there were 35 family houses and thirteen bachelor houses. A minimum of imported materials were used. The walls consisted of columns of local stone, filled in with panels of *farrush* and plastered with *gutch*. The roofs were constructed of wooden joists covered with boards and a layer of local mud. Tennis courts and a swimming pool were provided and a nine-hole golf course laid out. The industrial area consisted of a garage, maintenance shops and transport compound, machine and welding shops, carpenter's shop and electrical shop. The entire camp was enclosed by a perimeter fence. Awali was linked by surfaced road to Jebel Camp and later to Manamah.

Before the first construction phase was completed, plans were being prepared to extend the settlement. Already during the construction of the refinery at Sitrah in 1936, new dormitories had been built at Awali and even tents used, while some construction workers were also accommodated at Jebel Camp. The expansion of the refinery resulted in an increase in the workforce and 33 new houses, small, compact and with airconditioning, were built half a mile to the north of the main settlement, together with a new hospital, doctor's house and sister's quarters.

A second expansion of the refinery, beginning in late 1943, resulted in major accommodation problems at Awali. From an initial 87 men in December 1943, by the end of 1944 there were 650 construction workers living at Awali. The reduction in staff during the early years of the Second World War had given some spare housing capacity but this was quickly used up, and nine 24-room dormitories were erected



together with a 52-room bunkhouse to accommodate the new arrivals. A decision was also taken in 1943 to build thirteen three-bedroom family houses, six in the upper camp and seven in the lower camp. With the help of building materials from ARAMCO the houses were completed in 1944.

The end of the war introduced a period of rapid expansion in the Company's activities, and housing for an increasing number of dollar/sterling employees was one of the most urgent problems. Most of the new employees were single or on bachelor status and existing accommodation was already full. The allocation of family houses was even more of a problem and married employees often had to wait up to two years or more before their families could join them. Work began immediately to expand housing facilities and associated amenities and construction continued until the mid 1950s bringing the total area of Awali to some 158 ha. The major construction programme at the end of the war made the existing industrial area at Awali totally inadequate and it was decided to locate all new industrial facilities at the refinery.

Only European and American employees of the oil company were eligible for housing at Awali, and before 1953 local workers were expected to find their own accommodation. No formal housing scheme for Bahrainis was introduced by the company until 1953, when local employees with more than five years' service and at a certain level on the rupee payroll could borrow money against their employees' contributions in order to extend and repair their existing homes. Ten years later in 1964, a new scheme allowed workers at higher pay levels to borrow money for house construction.<sup>7</sup> In addition to the company's settlements at Awali and Sitrah, a new camp was built at Rifa'a three kilometres north of Awali, to provide housing for Indian workers and also some Bahrainis.

Awali, the main oil company town, grew rapidly to 1,532 inhabitants in 1941 and 3,846 in 1950. After 1950 however its population declined to only 2,097 in 1965 due largely to a fall in the number of European and American employees working for the company whose places were taken by Bahrainis living outside Awali. The Bahraini population remained heavily concentrated in the capital, Manamah, and in the neighbouring town of Muharraq, two and a half kilometres away. Manamah grew rapidly from 27,835

inhabitants in 1941 to 61,726 in 1959. Muharraq experienced a slower rate of growth, increasing from 21,439 in 1941 to 32,302 in 1959. In 1941 just over half of the total population of Bahrain lived in these towns: by 1959 this proportion had risen to two-thirds.

In Kuwait oil was discovered in 1938 in the Burgan area 45 km south of Kuwait town and 22.5 km inland from the coast, and further drilling confirmed the existence of a major oilfield. After the wartime shutdown, operations began again in 1945 and the first oil exports were made from a temporary marine terminal near the village of Fahahil in June 1946. Plans were prepared for the construction of permanent oil and cargo facilities and by the end of 1949 the new oil port of Mina' al Ahmadi was in full operation. A 25,000 b/d refinery also came on stream at Mina' al Ahmadi in 1949. In July 1950 the company transferred its field headquarters from Magwa to a new site at Ahmadi 35 km south of Kuwait town and ten kilometres from the oilfields of Burgan and Magwa. Magwa remained the site of the company's main hospital and training centre. In the spacious and carefully planned town of Ahmadi, the company built its administrative offices, an industrial area and other technical establishments and housing areas for their employees. Although some housing was built at Ahmadi for the company's Kuwaiti employees, the majority preferred to live in Kuwait town and to travel daily to the oilfields in buses provided by the company. Kuwait town grew rapidly during this period and by 1961 the town and its suburbs (as classified by the census) contained 152,218 inhabitants, almost half of the total population of the state. Ahmadi, on the other hand, had only 12,860 inhabitants in that year and two thirds of the population were non-Kuwaitis.

Early oil exploration in Qatar was directed from Bahrain. A jetty was built at Zakrit on the west coast of the peninsula as an unloading point where materials and stores could be assembled and communications established with Bahrain. The company decided to establish its headquarters at Dukhan in the west of the peninsula, and the first well was completed just to the north of the camp in 1940. Accommodation for the British staff at Dukhan was built first and grouped around the manager's house. Dormitories for the Qatari workers were constructed some distance to the south.



Operations were suspended in 1942 and when they were resumed in 1946, a great deal of new construction was necessary before the first exports of oil were achieved at the end of 1949. It was not possible to build a tanker terminal on the west coast because of shallow water and coral reefs, so the oil was pumped through a pipeline constructed to the east coast of the peninsula at Umm Sai'd, 32 km south of Doha, the capital. At Umm Sai'd there was a natural deepwater harbour and the new terminal was equipped with a jetty, pumphouse, offices and residential quarters. Umm Bab was the headquarters of all the company's ancillary construction work, pipe and road laying and building. Simple houses or tents were erected for the staff and workers and shelters for the equipment. Dukhan was the largest company settlement with jetties and transit yards, the main company offices, residential areas with clubs and other recreational facilities and an industrial area with storehouses and repair shops.

None of the new settlements, however, achieved the remarkable growth experienced by the capital, Doha. Before the discovery of oil, Doha already contained almost half of the Qatari population. The extraordinary population growth that started during the two decades following the Second World War was overwhelmingly concentrated in the capital city, further accentuating the imbalance between Doha and other settlements.

### 3.4. Case Study - Abadan.<sup>8</sup>

Of the new towns in the Gulf created following the discovery and development of the region's oil resources, Abadan was by far the most important and experienced the most spectacular growth. In the space of less than 50 years, Abadan grew from a village of a few hundred fishermen and cultivators to a city of almost a quarter of a million people, the largest city in the Gulf and one of Iran's major urban centres. The most dramatic increase in the population occurred during and after the Second World War, when the refinery was rapidly expanded and the company's workforce more than doubled. From an estimated 100,000 inhabitants in 1943, the town grew to 143,000 in 1952, and to 226,000 at the first national census in 1956. Strong immigration represented

the key component of urban growth. Abadan was a city of immigrants and the great majority of the adult population had been born elsewhere (Table 3.6). Figures for 1956 reveal that 30.4 per cent of refinery workers had been born in Khuzestan, 28.9 per cent in Fars and 19.2 per cent in Eşfahān; 90 per cent of manual workers came from these three provinces, whereas Tehran, Mazandaran and Eşfahān were the main sources of managerial staff (Table 3.7).

Abadan was a classic company town and work in the great oil refinery built in 1912 by the Anglo-Persian Oil Company (after 1932 the Anglo-Iranian Oil Company) dominated its employment structure. At the end of 1949 an estimated 133,000 inhabitants out of a total population of 173,000 were company employees and their dependants. Most of the remaining population were workers employed by local contractors engaged in company projects and independent craftsmen and merchants and their families. According to the results of the 1956 census, 55 per cent of the city's total active population were employed in the refinery in that year and 85 per cent of those in the secondary sector.

The huge refinery with its extensive tankfarms, jetties and loading terminals overshadowed the entire urban area (Figures 3.1, 3.2). At an early date Costain's had been employed by the Anglo-Persian Oil Company to lay out housing areas for the Company's expatriate staff<sup>9</sup> immediately to the west of the refinery in a district that became known as Braim. In appearance these areas resembled a modern European housing estate or garden city with villas and bungalows neatly aligned along wide roads planted with trees (Figure 3.3.). The standard houses for senior salaried staff consisted of four or five bedrooms, two bathrooms, servant's room, store and courtyard. Until 1934 virtually no company housing was built for the Persian workforce (Table 3.8.) and to the east of the refinery, stretching back from the waterfront between two creeks, there grew up a maze of streets and alleyways with houses built around traditional courtyards. This area, built mostly by private initiative and containing an extensive bazaar, was known as Abadan town. To the north and east lay a second area of traditional housing, but laid out on a regular gridiron plan with numbered streets. It was in this district, Ahmadabad, that the Karun Engineering

**Table 3.6: The Origin of the Population of Abadan, 1956**

Age Group	Total population	Population born in Abadan	
		Numbers	%
All ages	226,083	106,204	47.0
less than 5 years	45,622	41,746	91.5
5-14 years	56,071	42,541	75.9
15-24 years	38,487	10,431	27.1
25-34 years	34,665	4,975	14.4
35-44 years	22,105	2,730	12.4
45-54 years	15,444	1,805	11.7
55-64 years	9,006	1,175	12.9
over 65 years	4,610	,774	16.8
age not given	73	27	

Source: Vieille, P. 'Abadan: morphologie et fonction du tissu urbain,' Revue Géographique de l'Est 4, 1964, p.366; from the first national census of Iran, 1956

**Table 3.7: Refinery Employees by Place of Birth, 1956**

Provinces	%			
Khuzestan	9.1	26.6	41.8	39.4
Fars	14.5	20.5	30.2	28.9
Eşfahān	21.3	22.8	18.7	19.2
Kerman	1.5	1.7	4.4	4.0
Kermanshah	9.7	7.5	2.2	2.9
Tehran & Mazandaran	24.2	8.1	1.0	2.4
Azarbaijan	11.3	6.5	0.6	1.5
Khorāsān	2.8	2.1	0.3	0.5
Foreigners	5.6	4.2	0.8	1.2

Source: Vieille, P. 'Abadan : morphologie et fonction du tissu urbain' Revue Géographique de l'Est, 4, 1964, p.366

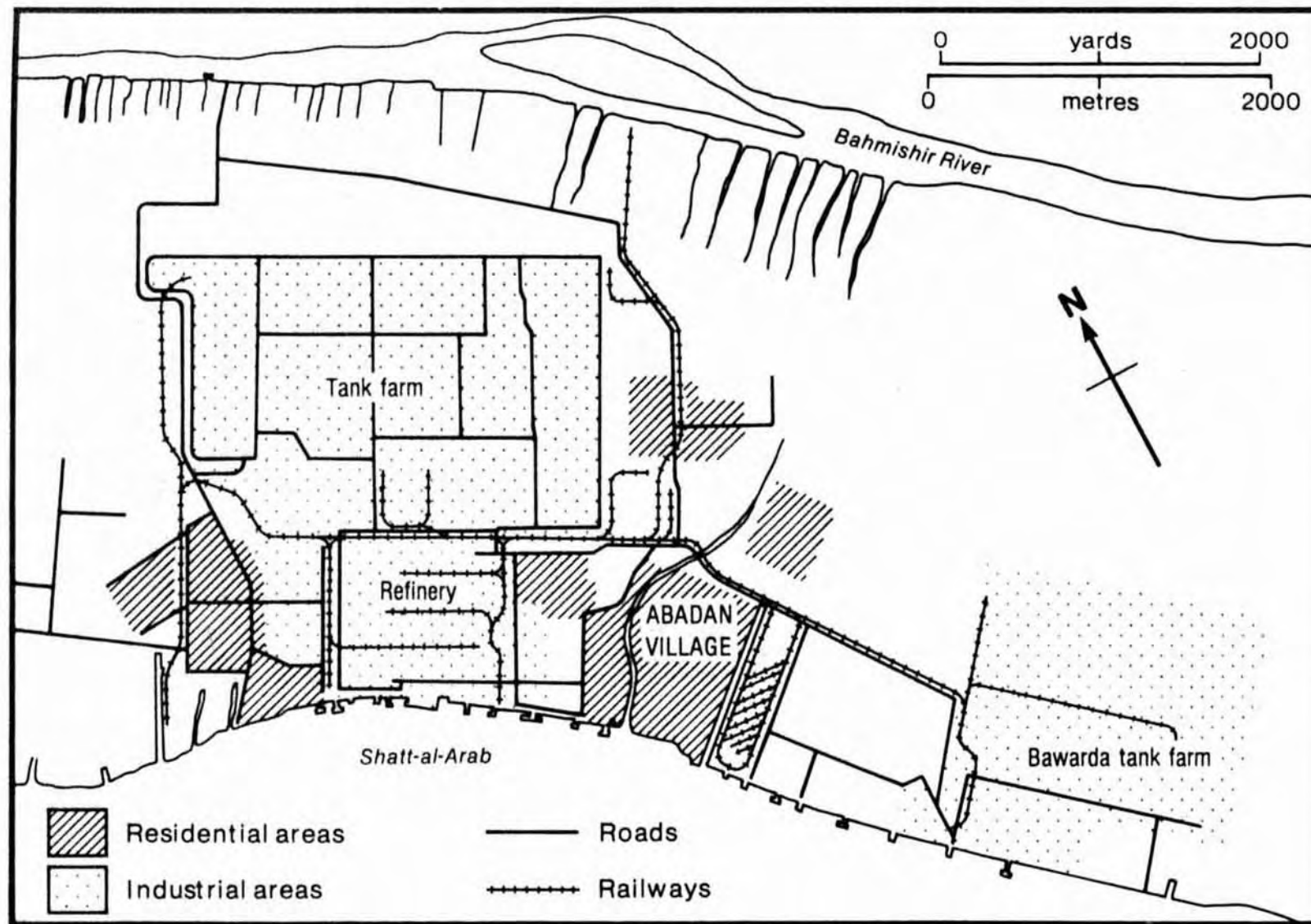


Figure 3.1: The Company Town of Abadan in the early 1930s



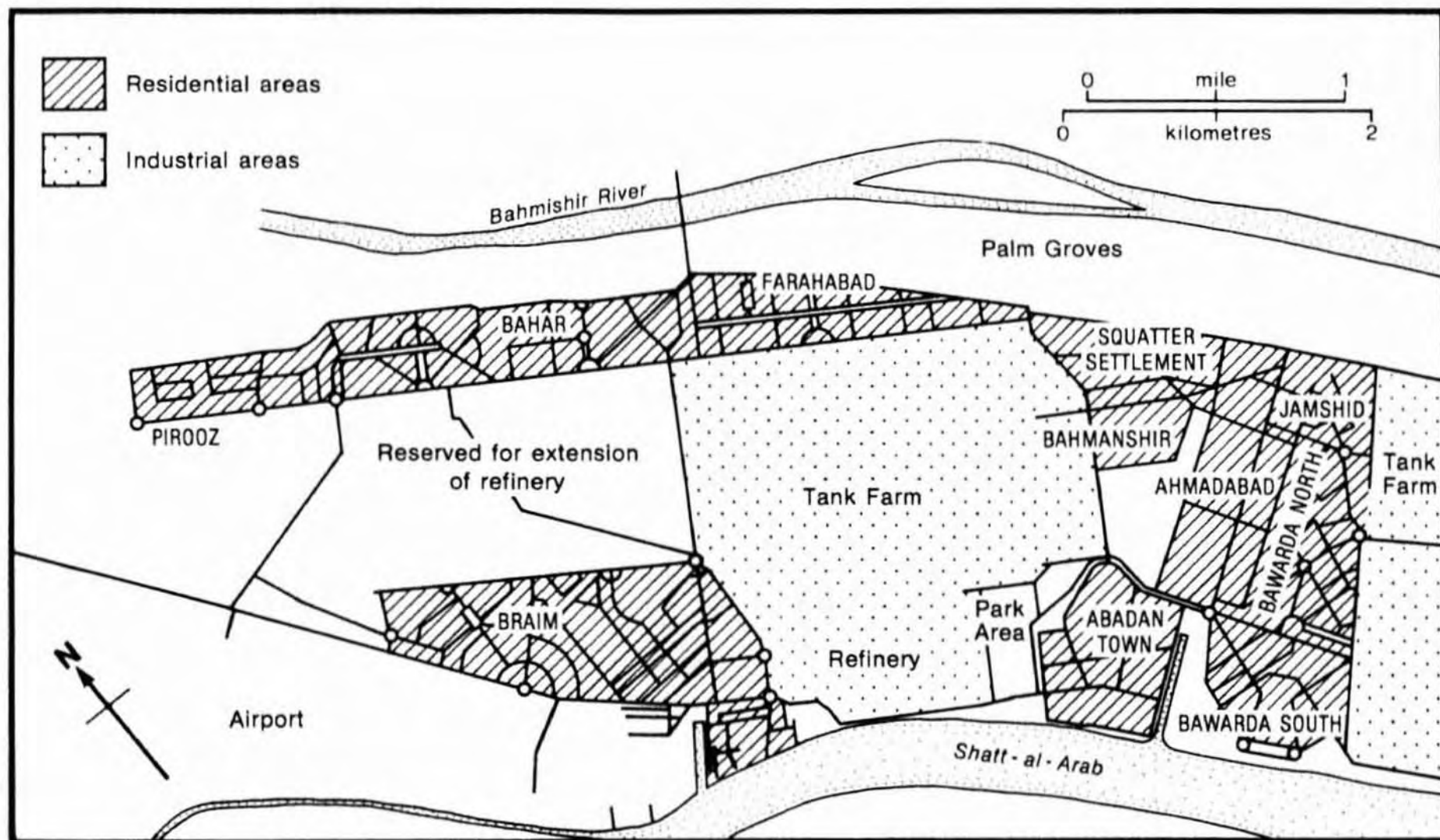
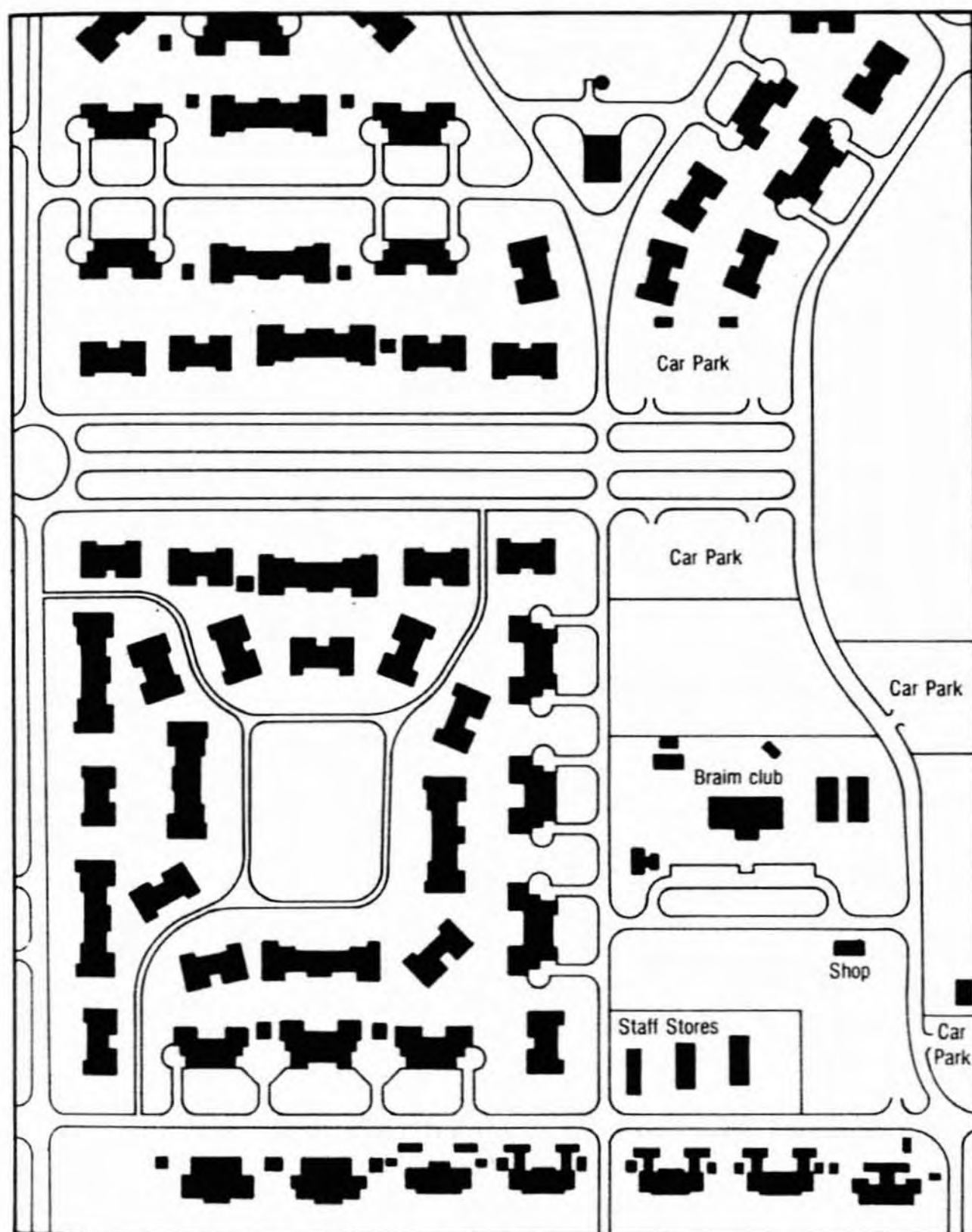


Figure 3.2: Abadan : the Main Residential Areas c 1950





**Figure 3.3: Plan of a Part of Braim, Abadan; a Housing Area for the Company's Expatriate Staff**

**Table 3.8: Houses Built by the Anglo-Iranian Oil Company at Abadan**

	Houses for married salaried staff	Rooms for bachelor salaried staff	Houses for married wage earners	Spaces for bachelor wage earners
Before 1934	476	774	28	33
1936-1940	875	54	1,995	709
1942-1944	80	1,229	1,484	136
1945-1949	883	187	2,271	78
Loss on conversion	-	-	199	-
Total	2,314	2,244	5,579	956

Source: Labour conditions in the Oil industry in Iran, ILO, Geneva, 1950, p.33

**Table 3.9: Number of Rooms Occupied by Families in Abadan (1956)**

No. of rooms occupied by each family	Ahmadabad	Workers' estates	Bawarda/ Park	Braim
1 room	72.4	15.0	10.0	8.3
2 rooms	18.4	32.0	5.7	5.6
3 Rooms	5.3	48.0	11.5	2.8
4 & 5 rooms	2.6	4.0	60.0	80.1
6 rooms & above	1.3	1.0	12.8	2.8

Source: Vieille, P. 'Abadan : morphologie et fonction du tissu urbain' Revue Géographique de l'Est 4, 1964, p.357.

Company built a housing estate of 290 houses after the Second World War. The oil company was responsible for the construction of the roads, sewage system and water points for the estate and in return the Karun Engineering Company agreed to let the houses to refinery workers at controlled rents.<sup>10</sup> Abadan town and Ahmadabad were outside the company's direct control and were administered by the Persian municipality, but they were dependent on the company for electric power and daily supplies of drinking water. To the south-east of Abadan town and Ahmadabad and to the north of the Bawarda tank farm, a second housing area for European employees of the Company was established after the Second World War.

Beginning in 1935 the company built five housing estates for wage earning personnel, Bahmanshir in 1935 to the north of Ahmadabad (Figure 3.2), Farahabad (1945), Bahar (1948), and Pirooz (1958) to the north of the refinery and main tank farm, and Jamshid (1952) to the south-east of Ahmadabad. The standard houses for wage-earning personnel were built in terraces (Figure 3.4), and consisted of two-three rooms together with a courtyard in which a small kitchen, shower and toilet were located. These efforts by the company to provide housing for its Persian employees were, however, totally inadequate given the size of the local labour force. The large unplanned squatter settlement that grew up on the northern and eastern edges of Bahmanshir during the 1950s and 1950's provided eloquent testimony to the acute housing problems experienced by the Persian workforce.

In 1956 a little more than a third of the city's population was living in company-controlled areas; 70,000 in the five housing estates for wage-earning employees (Bahmanshir, Jamshid, Farahabad, Bahar and Pirooz), 10,000 in Bawarda & Park, and 6,000 in Braim. Densities ranged from 33 inhabitants per hectare in Braim, to 60 inh./ha in Bawarda and 150 inh./ha in the workers' estates. The rest of the population, almost two-thirds of the total, lived in areas administered by the Persian municipality; 38,000 in Abadan town, 68,000 in Ahmadabad, 20,000 in the squatter settlement and a further 10,000 scattered along the banks of the Bahmishir river and the east bank of the Shatt al Arab. Densities here were very much higher than in the company

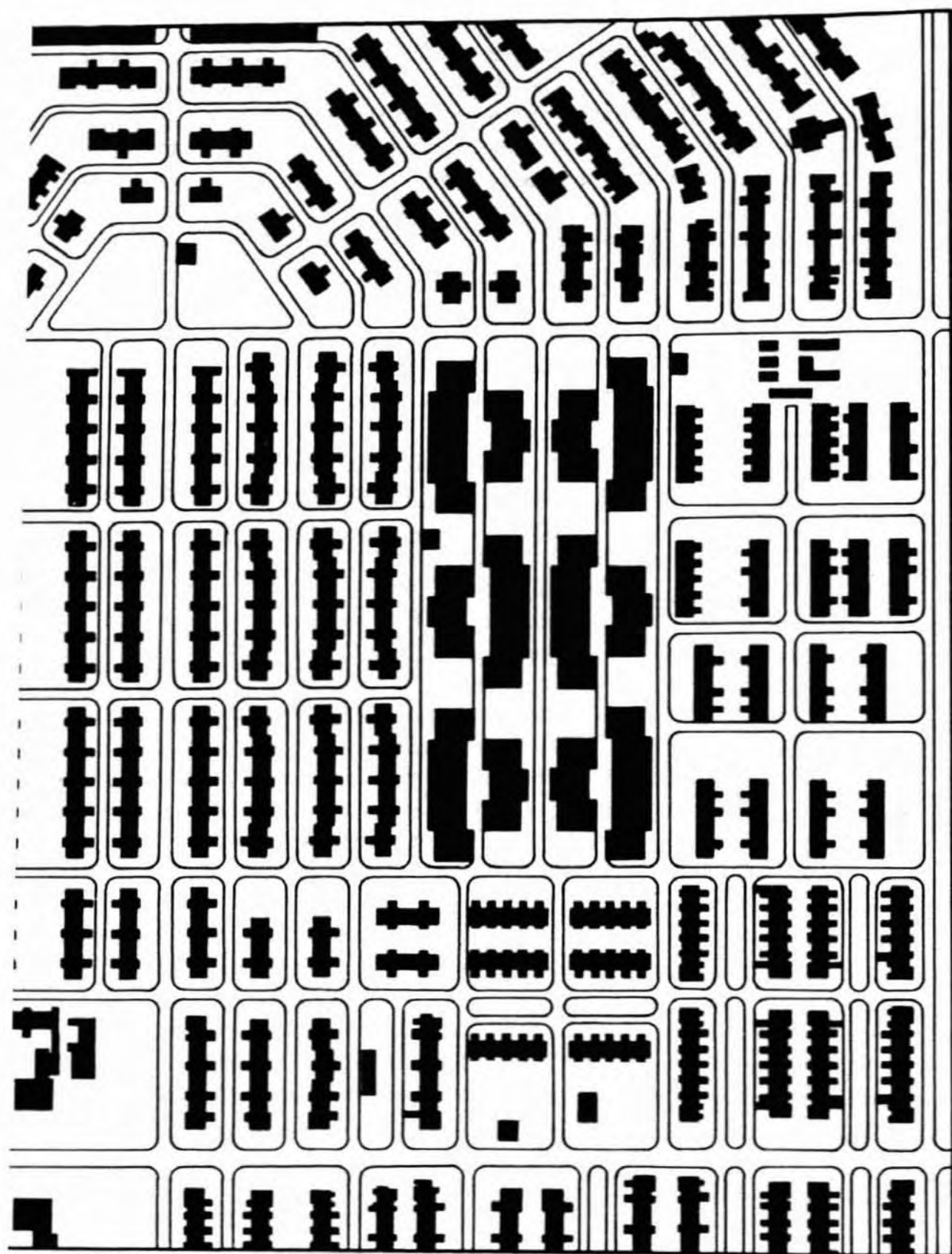


Figure 3.4: Plan of a Part of Bahmanshir, Abadan, One of the Workers' states Built by the Company to House its Persian Workers



areas; 600 inhabitants per hectare in Abadan town and 650 inh./ha in Ahmadabad and the squatter settlement. In Braim, Park, Bawarda and the workers' estates each dwelling was occupied by one family whereas in Ahmadabad and Abadan town most houses were subdivided among several families, with many families occupying only one room. The contrast between Braim, where over 80 per cent of families had more than four rooms, and Ahmadabad, where almost three-quarters of the families occupied a single room, was particularly striking (Table 3.9).

Contrasts in the provision of urban amenities were equally pronounced. In Braim, Bawarda and the workers' estates all the roads were surfaced and well-maintained; each house was supplied with electricity and piped drinking water and was connected to the main sewage network. The houses in Braim and Bawarda had bathrooms and both electric light and power, while the homes in Braim had the additional advantage of airconditioning. In Abadan town and much of Ahmadabad, although most of the roads were surfaced and the houses supplied with electric light, drinking water was distributed by public fountain and not supplied to individual houses and the sewage system was rudimentary. The squatter settlement and the north-eastern sector of Ahmadabad were the least-favoured areas. Public water fountains were rare, there was no electricity supply and untreated sewage collected in the unpaved streets which were virtually impassable for vehicles. Although commercial establishments (shops, cafes and restaurants) were heavily concentrated in Abadan town and Ahmadabad, there were no public parks and recreational facilities were rare. The workers' estates were also almost entirely lacking in the provision of recreational amenities. In Braim, however, social life revolved around the numerous clubs which were well equipped with swimming pools and other sports facilities.

In Abadan, as in most company towns, probably the most striking feature was the strict segregation of the inhabitants by ethnicity and occupational status, a policy which gave rise to sharp breaks between adjacent areas containing population groups of markedly different status. In this way the strictly hierarchical occupational structure of the company was faithfully reflected in the spatial patterning of



**Table 3.10: Distribution of Heads of Household Working in the Refinery According to Socio-Professional Status**

Urban District	Manual workers		Staff	
	Unskilled	Skilled	Middle-level	Senior
	%	%	%	%
56 Ahmadabad Workers' estates	61.8	34.2	4.0	-
Park & Bawarda	38.5	48.5	12.0	1.0
Braim	4.4	4.4	81.1	10.1
	0	5.4	37.8	56.8

Source: Vieille, P. 'Abadan : morphologie et fonction du tissu urbain,' Revue Géographique de l'Est 4, 1964, p.362

the city's residential areas. This ecological pattern has been described by Abu Lughod as conforming to an "apartheid model".<sup>11</sup> Vieille<sup>12</sup> has argued that from the outset the planning of residential areas at Abadan was determined by the oil company's desire to isolate its foreign employees, principally the Europeans, but also Indians, from the Persian workforce and the rest of the local population, primarily for security reasons. Later, a part of the local workforce, notably the skilled artisans, were also provided with company houses in the workers' estates, isolating them in turn from the other Persian workers who remained in Abadan town and Ahmadabad.

The influence of the company's policies on the spatial patterning of the city's population remained after AIOC was nationalized and the number of foreign employees declined dramatically. Immediately before nationalisation, the refinery employed some 3,000 foreign nationals out of a total workforce of 40,000. In 1950 the number of foreigners fell to 50, rising to only 300 in 1956. Nevertheless, in that year a survey of heads of household working at the refinery revealed that 94.6 per cent of those living at Braim and 91.2 per cent of those in Park and Bawarda, the former European areas, were staff and senior management (Table 3.10). In the workers' estates the majority were skilled manual workers, whereas at Ahmadabad almost two-thirds were unskilled workers. Thus, the ecological structure remained highly segregated, retaining to a remarkable degree the pattern of the divided city created by the company.

#### NOTES

1. Shahnavaaz, 1980
2. *National and Province Statistics of the First Census of Iran, November 1956*, Tehran, Ministry of Interior, 1961, Volume 1, Number and distribution of the inhabitants for Iran and the Census provinces
3. Longrigg, 1961, 123

4. Gach Sarān had been brought into production in 1940 after the completion of a pipeline to Abadan but closed down in the same year because of the decline in demand for oil. Because of tribal unrest in this remote area the wells were sealed and development of the field did not resume until after the war
5. Al-Shuaiby, 1976, 288
6. This section is based on Gornall, 1965
7. Rumaihi, 1976, 95
8. This section is based on Vieille, 1964
9. Great Britain, Naval Intelligence Division, 1945, 496
10. ILO, 1950, 34
11. Abu Lughod, 1980, 304
12. Vieille, 1964, 378

#### **4. OIL COMPANY HOUSING PROBLEMS AND POLICIES: SOME ILLUSTRATIVE CASE STUDIES**

This chapter presents five short case studies which illustrate some of the accommodation problems faced, and the policies adopted, by specific oil companies at different stages of their development.

##### **4.1. APOC/AIOC - housing problems in Abadan & Fields**

Housing was identified by the ILO mission to Iran in 1950 as the most serious problem in the areas where the Anglo-Iranian Oil Company was operating. The shortage of housing, they concluded, was one of the major causes of discontent among the Persian workforce. Only expatriate employees were entitled to housing on appointment, and for local employees available housing was allocated according to salary/wage level and length of service. Ambitious construction programmes planned in the late 1930s had been interrupted during the Second World War and although the building programme accelerated after 1945 the rapid increase in the workforce in the postwar years merely aggravated the deficiencies. Total employment at Abadan and Fields rose dramatically from 26,123 in 1940 to 55,970 by 1949. At Abadan virtually no accommodation was built for wage-earners until the mid 1930s, while in the oilfields priority was given to developing oil production, and the provision of accommodation and community services took second place. Hird, Labour Attache at the British Embassy, Tehran observed in December 1946:

Most of the present social problems of the Fields can be attributed to the former programme of geologist's report, selection of site, despatch of drilling crew and concentration on oil production with belated realisation that a community of workers and their families had been conjured up lacking adequate amenities.<sup>1</sup>

Elwell-Sutton records that in 1950 a member of the AIOC management explained:

...we are here operating as a commercial concern, solely to get oil. The construction of roads, houses, schools, the planting of trees and gardens, the building of bazaars and cinemas in areas where no human being would be found but for the presence of the Company, must be kept to the lowest possible minimum.<sup>2</sup>

The magnitude of the problem was revealed by figures provided by the company to the ILO mission. They indicated that by the end of 1949, almost all salaried staff at Abadan (90 per cent) were provided with accommodation in company housing whereas of the 31,875 wage-earners only 16.6 per cent were in company houses. Moreover it is interesting to note that of the 5,579 houses available for married wage-earners in 1949, 750 had been allocated to salaried staff, 388 had been assigned to non-employees, 325 were being used as service shops and offices and 319 were undergoing repair. In the oilfields a higher proportion of the wage-earners, about one third, were in company accommodation compared with two-thirds of the salaried staff. Within the category of wage-earners, 48 per cent of artisans, 49 per cent of skilled workers and ten per cent of unskilled workers were living in company quarters. The situation at Fields, however, may well have been more unsatisfactory than these figures indicate. Hird reported at the end of 1946 that "only about one third of the total Fields labour force is housed and much of the accommodation is old and inferior to modern standard."<sup>3</sup> The community at Agha Jarī provoked particular concern:

1100 workers with families are accommodated in rooms (with suspicion of heavy overcrowding) and 450 families live in tents. There are no facilities whatsoever for 800 workers living with their families in some form of Company accommodation. An extensive programme of housing construction is in hand at the new Centre, but it may be years before the move is completed and in the meantime Agha Jari housing will be freely and incessantly quoted as an example of the iniquities of the Company.<sup>4</sup>



Elwell Sutton, using the figures from the ILO mission's report, calculated that:

In 1949 accommodation was available for 3,295 foreign salaried staff and 3,162 Persian salaried staff, leaving 1,181 of the latter unhoused - about 27 per cent; 1,182 foreign wage-earners (mostly Indians) were accommodated and 9,363 Persian wage-earners, leaving a balance of 27,787 Persian wage-earners - 80 per cent, to say nothing of the 16,000 contractors' men. Altogether, then, 12,525 Persian employees were accommodated by the company out of 51,493.<sup>5</sup>

He further calculated that only one-sixth of the population of the oil towns were living in company houses; the rest had to find their own accommodation "mostly in ramshackle 'boom-town' hovels". The plight of these workers who were not provided with accommodation by the Company was recorded by the ILO mission. At Abadan, the report states,

the great majority of the oil workers live in the older, overcrowded sections of the municipal districts, where more often than not the entire family or three or four bachelors occupied a single room. Rents are very high and an attempt made by the Government to fix a ceiling to rents in relation to the statutory minimum wage has utterly failed. Finally, another group of workers lives in mud houses or huts made of all sorts of materials, or in the 360 tents which the Company put up in 1949 as an emergency measure to accommodate homeless workers.

At the oilfields:

Wage earners who have not obtained Company quarters are given an allowance of 1 rial a day. They usually live in mud villages more or less near the oilfield or build themselves a shelter

near the place where they work, often with the help of building materials supplied free by the Company.<sup>6</sup>

Though commending the Company on the high standard of housing that was being built for Persian workers, Hird<sup>7</sup> suggested that it would do better to concentrate in future on mass producing emergency accommodation and then rebuilding to raise standards. The ILO mission made a similar recommendation pointing out that without reducing the standard of housing below a decent level, it might be possible to construct many more less costly houses which fulfilled all basic requirements.<sup>8</sup>

## **4.2 Awali and Ahmadi: the housing policies of BAPCO and KOC**

### **4.2.1 Bahrain**

As in the other oil companies, priority was accorded in the provision of housing by BAPCO to its British and American personnel. Initially housed at the site of the first well (Jebel camp) or in Manamah, construction of a permanent camp five and a half kilometres further north was begun in 1934. The Awali camp was completed in 1937 and provided 35 family and thirteen bachelor houses; an extension, in the A.C. camp, was begun in 1936 to accommodate the increases in the labour force with the construction of the Sitrah refinery. Further extensions were made in the mid-1940s when the company's activities and labour force grew very rapidly. By January 1949, when Audsley made his first visit to the company, there were 304 married quarters in occupation by the British/American staff, with a further 62 under construction.

Married accommodation was allocated on a points system: one point for each month of service, one quarter point for each month of separation from the family, one point for each month of service in an affiliated company and from five to 50 points according to job classification. The company hoped that by the end of 1949 all married men with one or more years' service would be allocated married quarters. These bungalows were rented to employees at a charge of

Rs.180 to Rs.275 per month depending on size and type. By taking a lower grade of accommodation staff could therefore save on their fixed rent allowance of Rs.250 per month. Unmarried and unaccompanied senior staff employees were either housed in individual rooms in bungalows of four to nine men or, less satisfactory, in 'bunk-houses' of 30 men.<sup>9</sup>

The company also provided free accommodation in a stone-built camp at Awali, for approximately 1,000-1,100 of the non-contract daily rate workers, the majority of whom were Bahraini. Daily rate Indians (of whom there were 364 in December 1948) were housed in individual rooms, each with electric light, water and communal cooking facilities, at the nearby Rifa'a camp. The camp was maintained by the company and included a small school for Indian children. Free transport was provided to Manamah. However the majority of Bahrainis (over 80 per cent) and all the monthly paid Indians (291 in December 1948) were not accommodated by the company. More than 3,000 Bahrainis were transported daily in company buses to and from their homes in Manamah, Muharraq and the outlying villages, more than 50 of which supplied labour to the company in 1953 (see Figure 4.1). A daily charge of six annas for Manamah, and four annas elsewhere was made. These charges were a source of much discontent among the daily rate workers since it absorbed a high proportion of their average Rs.3/day wage and was a major grievance in the 1938 strike.

Monthly paid Indians received a housing allowance of Rs.50 in lieu of free accommodation. Like the daily rate Bahrainis they were charged six annas/day for transport to Manamah where the majority lived in rented accommodation. The company justified its decision not to provide permanent housing for this group, most of whom were in clerical occupations, on a number of grounds:

1. priority must be given in labour-time and material to the development of production facilities;
2. construction of a separate Indian housing estate would involve the use of a large additional labour force and much material;

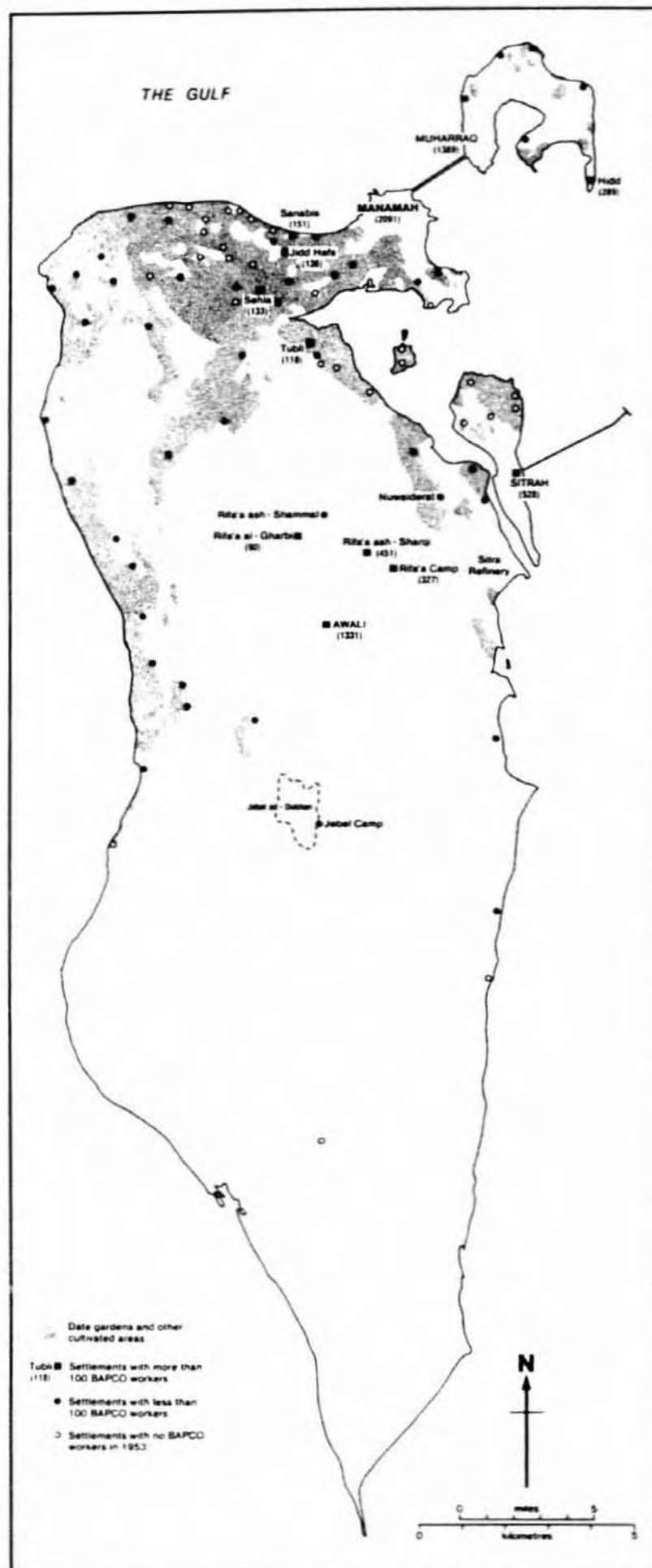


Figure 4.1: Home Location of BAPCO Employees in 1953



3. such an increase could only be avoided by re-directing labour and material from the senior staff married quarters housing programme. The latter was regarded as essential to the contentment and stability of the British and American technical employees and reduced progress could not be envisaged;
4. there was already an Indian community in Manamah which had its own clubs and religious facilities;
5. an Indian estate at Awali would increase pressure on transportation to Manamah;
6. the construction of an Indian estate at Awali would, in view of the company's policy of replacing Indians with Bahrainis, lead to over-capacity in housing in the longer term;
7. the company have discharged their contract obligations under the standard Foreign Service Agreements, which provide that the company shall either make available free living quarters or pay an allowance in lieu thereof.<sup>10</sup>

#### 4.2.2 Kuwait

A similar response to the housing of Indians was adopted by KOC in its post-war expansion. When Audsley first visited KOC's operations in February 1949, construction of permanent accommodation (for senior staff) at Ahmadi had only just begun and the majority of non-staff employees, including 49.2 per cent of all the Indians, were housed in tents and *sarifas* (matting huts). Audsley describes the conditions during a sandstorm:

Tents were being blown into all shapes and it was even necessary to keep a bull-dozer in use to shift the blown sand away from the entrances to the huts. Most of the artisans and all the labourers cook, eat and sleep in these tents and huts, and the equipment provided is very limited. Water for washing and sanitary arrangements are extremely inadequate. Drinking water is strictly rationed...as all supplies have to be brought from Abadan across the Persian Gulf...I could not help having the utmost sympathy with everyone who had to

work, let alone eat and sleep, under these conditions.<sup>11</sup>

Jordan, KOC's General Manager, demurred when Audsley suggested that too much labour and material had been used in the rapid industrial development and too little in the provision of reasonable living conditions. Jordan argued that the company was determined to press ahead with the development of Ahmadi new town rather than divert labour and material into the construction of improved temporary accommodation. It was clear to Audsley that the company was playing for time by recognising that, with the discharge of large numbers of unskilled/semi-skilled workers and continued progress on the permanent accommodation programme, the supply and demand for housing could be brought into line within two or three years.

The Indian Government's 'Goodwill Mission' which visited KOC in October 1949 was also critical of the inadequate housing provision for Indian workers and the slow pace at which the company's housing programme for lower grade staff was proceeding.<sup>12</sup> The Jha-Habib mission reported that inadequate housing provision was the most serious grievance of the Indian employees. Large numbers of Indians, particularly the clerical grades, were living in rented accommodation in Kuwait town for which the company paid them an additional housing allowance. The mission criticised the unpaid travel time, which added up to two hours a day, and the fact that if an employee missed the company transport then he stood to lose a whole day's pay.

By 1953 the company had made some progress in the housing programme at Ahmadi. Some 6.3 per cent of Kuwaiti and 46 per cent of Indian/Pakistani 'labour' grades were now housed in two-man rooms in permanent quarters, while only 969 Arabs and 817 Indians were still in tents. However the company still only provided bachelor-status accommodation and more than 650 married 'labour' grade employees lived with their families in an unofficial barasti camp adjacent to the company's installations at Ahmadi.<sup>13</sup> Not until 1954 did the company begin to build married accommodation for Kuwaiti labour payroll employees at South Ahmadi. This rented accommodation was allocated on the basis of length of

service. Despite the increased provision of married accommodation (in 1957 South Ahmadi housed over 300 Kuwaiti families), the majority of Kuwaitis contrived to travel daily from Kuwait town and the villages of Badawiya, Shaiba and Fahahil.

#### **4.3. Cholans and Barastis: the Audsley reports on PDQ housing policy, 1949 and 1951**

When Petroleum Concessions Limited's Qatar subsidiary (PDQ) resumed operations in 1947, employment growth was rapid: from just over 1,500 in December 1947 the labour force grew to 3,235 by December 1948. Much of that increase was due to the inflow of foreign labour. By 1950 non-Qataris accounted for 40.2 per cent of total employment (Table 4.1), with the vast majority of Qataris occupying the bottom two grades of the wage structure. The majority of foreign workers were either Indian (including Goanese) or Pakistani; in September 1950 for example there were 580 Indians and 261 Pakistanis. By March 1953 the number of workers from the Indian sub-continent had grown to 1,030, accounting for 59 per cent of all foreign workers in the company. The employment of Qataris had also increased rapidly, from 1,153 in December 1947 to 2,231 in December 1949, though many of these were in fact immigrants from other areas of the Gulf, particularly Trucial Oman, Muscat and Dhufar.

A major problem facing the company in providing permanent accommodation for this growing workforce was the fact that until September 1951 the scale and location of its operations and headquarters in Qatar were undecided. However, this argument did not prevent the construction of permanent housing at Dukhan for the British senior staff in 1947 and 1948. When Audsley visited the camp in January 1949 he noted, with reference to the British staff, that:

...it is remarkable that such a very high standard of housing has been made available to the employees. Each has a fully-furnished room - some have a bathroom attached - in well constructed buildings, these rooms have separate air-cooling units and...<sup>14</sup>

Table 4.1: PDQ : Employment by Nationality, 1937-53

	Oct.4 1937	Dec. 1940	Dec. 1941	Dec. 1947	Dec. 1948	Dec. 1949	Sept. 1950	Aug. 1951	Mar. 1952	Mar. 1953
British	1	8	8	106	n.a	180	153	180	n.a	186
US	-	5	5	17	"	20	161		"	16
Other										
European	-	-	-	1	"	2	3	522	"	1
Indian	5	20	46	161	308	399	431		608	600
Pakistani					152	161	261			250
Goanese					92	130	149	153		180
Qatari	28	300	300	1133	1755	2231	1860	1808	1682	1885
Adenese	-			1	-	-	-			
Bahrain	4			81	195	203	106			
Muscati	-			14	49	59	49			
Omani	-			7	4	3	1			
Kuwaiti	-			1	2	1	-			
Sharjan	-			-	2	13	5			
Iranian	-			1	1	-	1			
Iraqi	2			2	9	13	2			
Saudi	-			1	-	-	1			
Nejdi	2			-	-	-	-			
Palest- inian	-			-	17	49	9	11	191	-
Lebanese	-			1	2	18	7	5		
Jordanian	-			-	-	60	49	42		
Somali	-			-	6	6	3	-		
Zanzibari	-			-	-	-	3	-		
Others	-			-	-	-	-	173	282	287
Total	42	341	359	1560	2594*	3566	3109	3120	2572*	3596

\*Excludes US/British Staff.

Source: 10R R/15/2/865 (1937-39); 10R R/6/540 (1940); 10R L/PS/12/3720 (1941); 10R L/PS/12/1301 (1947); PRO FO 371/74942 E4934 (1948); PRO FO 371/82003 EA1011/4 (1949).



In contrast large numbers of monthly rate employees (mainly Indian and Pakistani clerical workers) were accommodated either in two-man rooms or in tents while all the unskilled or daily rate workers were housed in matting or mud huts (*cholans and barastis*) to which no services were provided. The company argued that much of this labour force would be required on a temporary basis only, and that the construction of permanent housing would absorb too much labour, material and time. As well as being impracticable on the scale required, the company argued that it would result in a considerable housing surplus at the end of the development period. The lack of local transport services and indeed of surfaced roads prevented the company from simply busing its workers to and from their homes in Doha on a daily basis.

Delays in decision-making and poor relations with both the workforce and the Ruler were, in part, a reflection of the company's management structure. The Qatar operation was only one part of its Gulf operation which was centred on Bahrain with the result that the management tended to be out of touch with day-to-day operations and seemed indifferent to the question of employee welfare.

In the two years following Audsley's first visit, the company made little progress in the housing of lower grades and particularly local workers. When the Ruler visited the company in May 1951, he was highly critical of the accommodation provided for Qataris, comparing it unfavourably with the Saudi labour camp of ARAMCO which he had recently visited. Although accommodation for married covenanted staff (ie British staff) had been much extended by the provision of prefabricated bungalows, thus releasing former staff bachelor housing for Pakistani and Indian monthly rate employees, the bulk of the local labour force was still housed in temporary accommodation.

British officials were increasingly agitated that the apparent indifference of the company's management to the needs of local workers, an attitude which was largely determined by their belief that they were the sole operators in a buyers' market for labour, would damage British relations with the Ruler. Moreover, as Audsley concluded in his 1951 report, comparison of the bungalows provided for British staff with the company housing for Indian, Pakistani and local

labour could be used to discredit the company and, by implication, the British administration. The company's defence that the cholans and barastis were 'no worse' than Qatari 'native' huts was firmly rejected.

In April 1952 more than 62 per cent of non-salaried employees were still housed in temporary accommodation (Table 4.2); 52.4 per cent in cholani huts and 9.7 per cent in tents. Among Qataris this proportion rose to 87.2 per cent compared to only 16.2 per cent of Indians. Audsley was critical of the planned housing provision for local labour. The company's original 'H-plan' married units, in which rooms for two families were separated by a courtyard containing a communal lavatory, shower and cooking area, were abandoned in order to speed up the provision of accommodation for bachelors. The latter were to be accommodated in blocks of eight rooms, each room measuring 11'4" by 15'8" with two small windows set high up in the walls. Each room was to house four men. No married accommodation would be provided. In his report Audsley notes that:

I recorded my extreme surprise when told that at Dukhan four men were to be accommodated in each room...I drew attention to the space needed for four beds and the limited ventilation, and I expressed with some emphasis my opinion that it was disgraceful to compel four men to sleep and live in such a small space...in effect the company intend to allocate four Arabs to an area now providing sleeping space for only two Indians or Pakistanis.<sup>15</sup>

In addition to the overcrowding Audsley pointed out that the blocks had no verandahs, which would provide shade for the walls as well as an alternative sitting and sleeping area in the summer. Audsley advised the company that verandahs and casement windows should be added to the rooms and that an absolute maximum of three men should be accommodated in each room. In order to reduce the number of men in each room and to re-house workers from the barasti camp Audsley calculated that the company would have to construct 74 eight-room blocks by the end of 1952, rather than the 26 blocks

Table 4.2: PDQ, Accommodation Status, Dukhan and Umm Sai'd, April 1952 (% distribution)

Type of accommo- dation	Indian/Pakistani			Northern Arabs Daily rate	Qatari		Others		Total
	Monthly rate	Artisans	Domestics		Artisans	Unskilled	Artisans	Unskilled	
Concrete block	91.8	64.0	18.9	100.0	100.0	-	16.9	-	31.7
Supalite	6.3	-	-	-	-	-	-	-	0.8
Nissen	-	-	76.9	-	-	-	-	-	5.4
Cholan	-	33.5	-	-	-	91.1	-	65.0	52.4
Tents	1.9	2.5	4.2	-	-	8.9	83.1	35.0	9.7
Number/ employees	379	406	212	64	234	1,532	118	100	3,045

Source: Based on a memorandum by L. S. Maxwell, PDQ Field Manager, dated April 1952. PRO FO371/98465 EA/2182/6

envisaged.

Although progress was made in re-housing employees during 1951-53, and Audsley's recommendations regarding the number of men per room was taken up, by April 1953 38.3 per cent of the total workforce and 57.6 per cent of Qatari employees, were still in temporary accommodation. This was despite the company's assurance to the British government that all employees would be housed in standard accommodation by the end of 1952. Each matting hut was occupied by at least eight men and after several years use and the ravages of sandstorms and rats, they were considerably dilapidated. In August 1952 the Political Officer in Doha noted that they were "...a squalid type of accommodation which cannot seriously be defended."<sup>16</sup>

The company's housing problems were eased somewhat with the move to Umm Sai'd since it was possible for the company to transport at least some of its workers to and from Doha on a daily basis. Free transport was provided together with an allowance of Rs.22/12 per month in lieu of free evening and morning meals.

#### **4.4. ARAMCO :the Italian work camps and the Saudi Housing Loan Scheme**

##### **4.4.1 The Italian work camps 1944-54**

The four previous cases have dealt with companies in which a positive correlation between ethnic origin and occupational status was clearly defined and which served as a basis for company housing provision. The employment of Italian manpower by ARAMCO in Saudi Arabia posed a more complex housing problem for the company management. The Saudi Arabian Government had agreed to the employment of Italians under specific conditions, namely that they would not receive preferential treatment with respect to wages, recreational facilities or housing conditions. As a result of the company's adherence to this provision the Italians, most of whom were skilled workers and technicians, were obliged to live under conditions which were appreciably inferior to those of the company's American personnel employed in the same occupations.<sup>17</sup> Moreover the Italians were paid less than one-



third of the minimum rate for American employees doing the same jobs.

The Italians were housed in two isolated work camps at Ras Tannūrah and Al Aziziyah. At Ras Tannūrah they were accommodated in what one observer described as 'rotting war-surplus' tents, four men in each two-man tent with neither light nor cooling fan. At Al Aziziyah camp the Italians were housed in barasti huts. The contrast between the living conditions of the company's Italian and its American personnel could not have been more pronounced. The isolation of the camps and their lack of recreational facilities created a serious morale problem which was intensified by low and discriminating wages, uncomfortable and insanitary living conditions, poor food and inadequate medical facilities.

In July 1945 the Italians went on strike over their living conditions, bringing a complete halt to the refinery construction programme. The strike was settled quickly in order to prevent disruption in the supply of fuel oil and gasoline for operations in the Pacific war. The company admitted that in their efforts to meet the emergency construction programme they had neglected necessary improvements in the Italian camp. Nevertheless the company stated that permanent accommodation would not be provided for the Italians since the Saudi government had insisted that their employment was to be on a temporary basis only. Some of the demands which the company agreed to rectify are indicative of conditions in the camps:

1. the company agreed to provide cool (but not distilled) water 24 hours a day;
2. the company agreed to provide bread which was 'fit for human consumption';
3. the company agreed to provide hot water in the camp kitchen (but not in the wash room);
4. the company agreed to install lighting in the camp latrines (but not in the workers' accommodation);
5. the company agreed to repatriate medically unfit employees at its own cost;
6. the company agreed to provide transport at lunchtime between the work site and the camp.<sup>18</sup>

Despite minor improvements in 1945-46, conditions remained very poor. Bailey, the US consul investigating conditions in 1947, concluded that: "...unquestionably the Italian employees are discriminated against socially, economically and morally...their living quarters are a disgrace to American enterprise."<sup>19</sup> Bailey also suggested that the company had overemphasized the 'alleged' demands of the Saudi Government regarding the treatment of non-US, and particularly Italian, employees. A second strike broke out on 20 May 1947 and lasted until 8 June 1947. The strike was broken by the deportation of almost 40 per cent of the Italian workers; the company made no concessions.

After this second strike the Italian government increasingly took up the cause of the Italian workers' dissatisfaction, not least because of pressure on it from the communists and other opposition groups. Filippo Zappi, Italian Minister in Saudi Arabia, toured the camps in early 1948, reporting that the Italians were living in conditions akin to those of a 'concentration camp'.<sup>20</sup> The US government, also fearing the repercussions of a swing to the left in Italy, also investigated conditions and impressed on the company the need for rapid improvements. If such improvements could not be made without prejudicing relations with the Saudis then the company was to terminate the recruitment of Italian manpower.

In early 1953 the two Italian camps were closed down when the company re-organised its expatriate accommodation on the basis not of nationality but of occupational status. The Italians were to be housed with Pakistanis, Indians and Palestinian manpower in a new 'Intermediate Staff camp'. Although a separate Italian 'quarter' was created within the camp the Italians objected vehemently to being housed with 'orientals' while American personnel lived in the superior 'Senior Staff' camp. Italian government complaints against the company were voiced in increasingly exaggerated, provocative and racist terms. With the availability of an alternative cheap skilled labour source in the form of Palestinian refugees, the company decided to terminate its Italian recruitment programme in 1954.

#### 4.4.2 The Housing Loan Scheme

Although ARAMCO provided rent-free bachelor-status accommodation for all its Saudi employees at Dhahran, Ras Tannūrah and Abqaiq, married accommodation was only available for senior staff (American) personnel. In early 1953 the company launched a Housing Loan Plan designed to assist Saudi employees in securing funds to build or purchase family housing in local communities. Strict conditions of eligibility were laid down which specified that the employees were to be: a) Saudi citizens; b) married or bona fide head of family; c) not in debt. A minimum of five years' previous service with the company was required for those employees earning less than SR400 per month, and of three years for higher income employees. The schedule of loans was closely related to salary level, thus employees earning less than SR400/month could borrow a maximum of SR20,000 while those in the highest salary range, SR35,000 or more/month, could borrow up to SR80,000. Loans were repaid by regular monthly salary deductions of up to 20 per cent.<sup>21</sup>

Under the terms of the 1954 Royal Commission strike settlement, the company agreed to waive 20 per cent of the loan debt, provided borrowers remained in company employment.<sup>22</sup> Following a study of employee preferences the company decided, in 1956, to broaden the loan terms. Housing scheme loans could now be used to cover privately built as well as company built houses. Moreover the geographical coverage of the scheme was widened to include all established communities from Hufūf to Jubayl rather than being limited to the company's approved residential areas<sup>23</sup> such as the new towns of Rahimah (near Ras Tannūrah) and Rajihah (near Abqaiq). By December 1956 the company had more than 200 houses ready for sale in its Dammam residential area and had laid out some 579 plots for employees to build their own houses on.<sup>24</sup> By 1958 the company had received more than 4,060 applications for loans under the scheme, of which 1,516 had been approved and construction of over 900 houses had been started. A further 702 houses built by the company had been purchased by Saudi employees.<sup>25</sup>

In addition to the Housing Loan Scheme, ARAMCO also established a Guaranteed Rental Plan. To encourage local contractors to build houses for sale to its Saudi employees the



company guaranteed to pay the rent, for a five-year period, on any such properties which contractors failed to sell.

The broadening of the Housing Loan Scheme and the introduction of the Guaranteed Rental Plan enabled increasing numbers of company employees to live with their families in the traditional urban settlements of the Qaṭīf and Al Hasa oases. By 1962 for example, company town sites accounted for only 16.2 per cent of Saudi employees' household locations compared to almost 58 per cent in the two oases.<sup>26</sup> Many of the employees formerly living in the bachelors' quarters at Dhahran bought houses in Dammam and Al Khubar. As a result of these moves the Dhahran population began to decline significantly in the late 1950s.

#### NOTES

1. PRO FO 371/61984 Hird 'Labour conditions - Anglo-Iranian Oil Co. - Persia' 31 December 1946
2. Elwell-Sutton, 1955, 94
3. PRO FO 371/61984 Hird 'Labour conditions - Anglo-Iranian Oil Co. - Persia' 31 December 1946
4. Ibid.
5. Elwell-Sutton, 1955, 94-95
6. ILO, 1950, 34-35
7. PRO FO 371/61984 Hird 'Labour conditions - Anglo-Iranian Oil Co. - Persia' 31 December 1946
8. ILO, 1950, 77
9. PRO FO 371/74942 Audsley 'Report on a visit to Bahrain, January/February 1949'
10. Ibid.
11. PRO FO 371/74942 Audsley 'Report on a visit to Kuwait' February 1949
12. PRO FO 371/74964 'Observations of the Indian Goodwill Mission' December 1948
13. PRO FO 371/104450 Audsley 'Report on a visit to Kuwait' April 1953'
14. PRO FO 371/74942 Audsley 'Report on a visit to Qatar'
15. PRO FO 371/91363 Audsley 'Report on a visit to Qatar and Bahrain, Persian Gulf, 21st to 28th April 1951'
16. PRO FO 371/98465 C.T.E. Ewart-Biggs (Political Officer, Doha) to W.S. Laver (Political Agent, Bahrain), 19 August 1952



17. For a detailed discussion see Seccombe, 1986
18. NAA, RG 59, box 6958, file 890f. 5045/8-345. Memo by Walter W. Birge (Vice Consul, Dhahran) 'Consulate acts as arbitrator in strike of 1700 Italian employees of ARAMCO at Ras Tanura'
19. NAA, RG 59, box 6960, file 890f. 6363/8-1847. Waldo E. Bailey (Consul, Dhahran) 'Memorandum concerning the treatment accorded Italian employees by the Arabian American Oil Company at Dhahran, Al-Aziziyah & Ras Tanura, Saudi Arabia'.
20. NAA, RG 59, box 690, file 890f 6363/2-1348. J. Rives Childs (American Legation, Jeddah) to Secretary of State (Washington D.C.) 'Record of conversation with Italian Minister (Signor Filippo Zappi) regarding the situation of the Italians at Dhahran'.
21. The scheme is outlined in Badre & Siksek, 1959, 85-89
22. NAA, RG 59, box 5472, file 886a 062/1-2354
23. ARAMCO, *Annual report to the Government of Saudi Arabia*, 1956 43-44
24. Al-Shuaiby, 1976, 295
25. Badre & Siksek, 1959
26. Al-Shuaiby, 1976, 259

## PLATES

1. The old town of Mohammarah (Khuzestan) - traditional houses along one of the canals leading from the Karun river.
2. Dezfūl, one of the most important towns in Khuzestan before the discovery of oil.
3. Some of the Persian workforce leaving the Abadan oil refinery at the end of a shift.
4. The company town of Abadan dominated by the great oil refinery; in the foreground the Persian quarter known as "Abadan town" and beyond the refinery the district of Braim built for the company's British expatriate staff.
5. General view of Abadan; in the foreground the district of Braim and beyond it the refinery and extensive tank farms.
6. Braim, Abadan, built to house the company's British expatriate staff.
7. Recreational facilities, including tennis courts and swimming pools (foreground), were provided in the residential areas of Abadan designated for the company's British expatriate staff.
8. One of the two-storey houses in the south Bawarda estate, Abadan, a second housing area for the company's European staff situated to the south-east of the refinery.
9. Farahabad, Abadan; one of the housing estates built by the company for Persian "artisans".
10. Part of the Bahmanshir housing estate Abadan, built in 1935 for the company's Persian workers.
11. Examples of family houses for Persian workers in the Bahmanshir housing estate, Abadan.

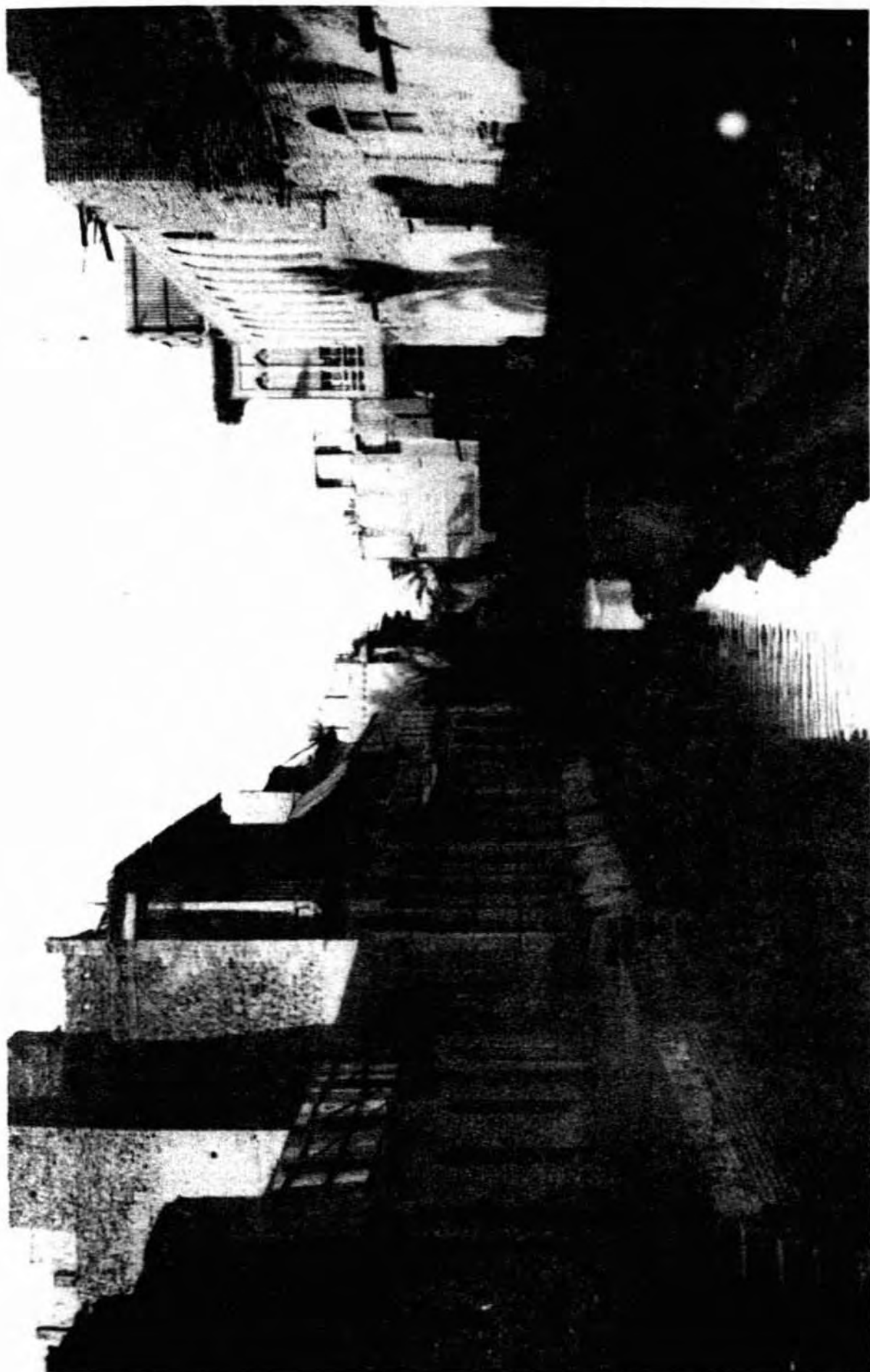
12. Construction of new houses for Persian workers in Bahar estate, Abadan.
13. The vegetable bazaar in "Abadan town".
- 14, 15. Streets in Ahmadabad, Abadan (Spring 1943), an area of traditional housing situated to the north and east of "Abadan town".
16. Bungalows built for British expatriate staff at Masjed Soleymān, Khuzestan, the major settlement in the oilfields and producing area.
17. Examples of hillside dwellings of the Persian workforce at the oilfields, Khuzestan.
18. New houses under construction for Persian workers at Masjed Soleymān.
19. At Agha Jarī, in the oilfields of Khuzestan, many company workers and their families were accommodated in tents at the end of 1946.
20. Part of the old town of Kuwait and the harbour in 1949.
21. Bahra camp, Kuwait; tents and nissen huts provided accommodation before the company town of Ahmadi was built.
22. A general view of the company town of Ahmadi, Kuwait under construction in 1949.
23. Ahmadi, Kuwait, 1949: tank farm, permanent married accommodation (left foreground), Senior staff temporary accommodation (centre) junior staff accommodation (right foreground).
24. Senior Staff house, Ahmadi, Kuwait.
25. Houses built for Kuwaiti workers, Ahmadi, Kuwait.

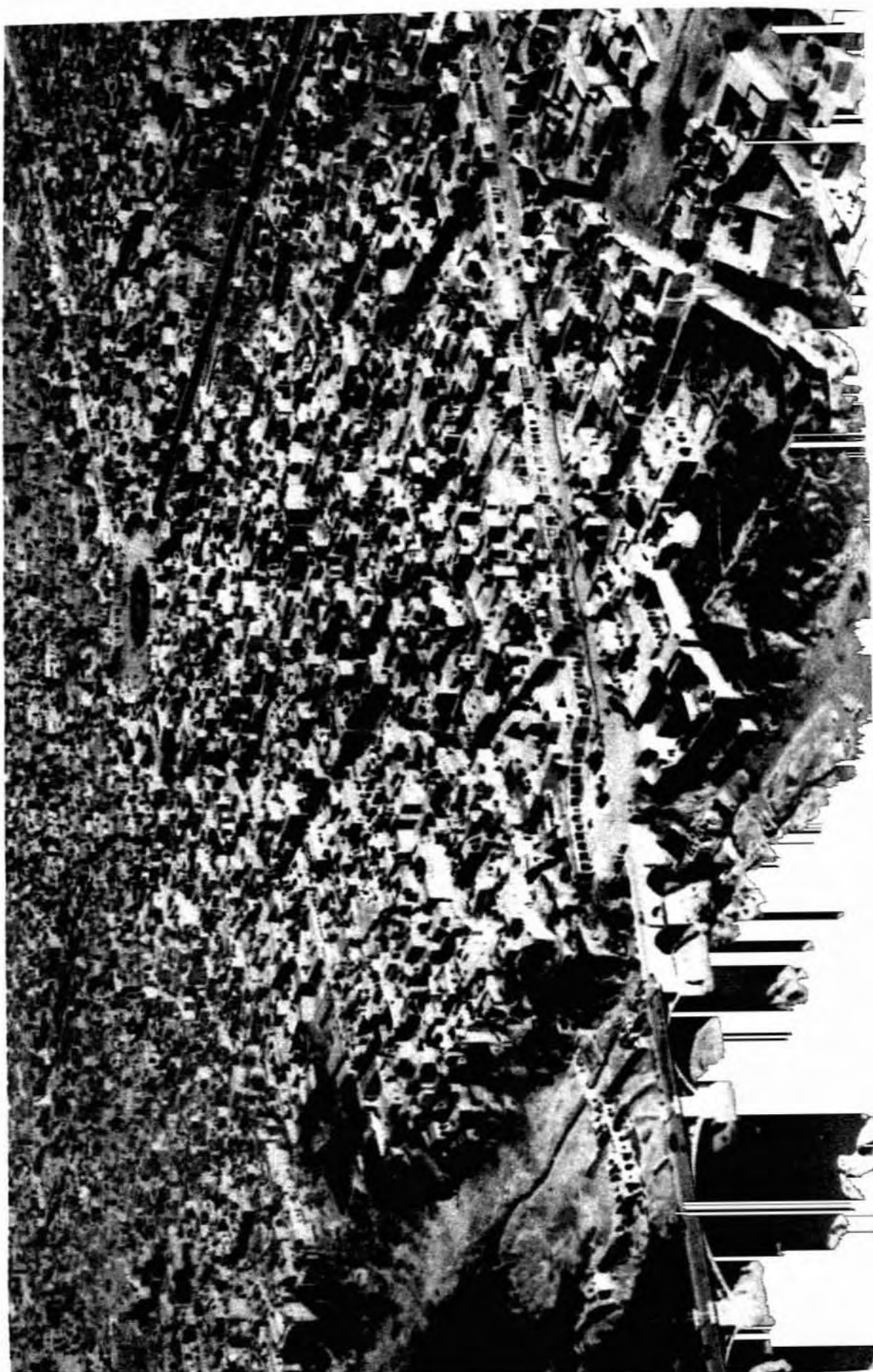
26. Qatari employees' houses built under the "Home ownership scheme" at Doha established by the Shell Company of Qatar, Ltd.

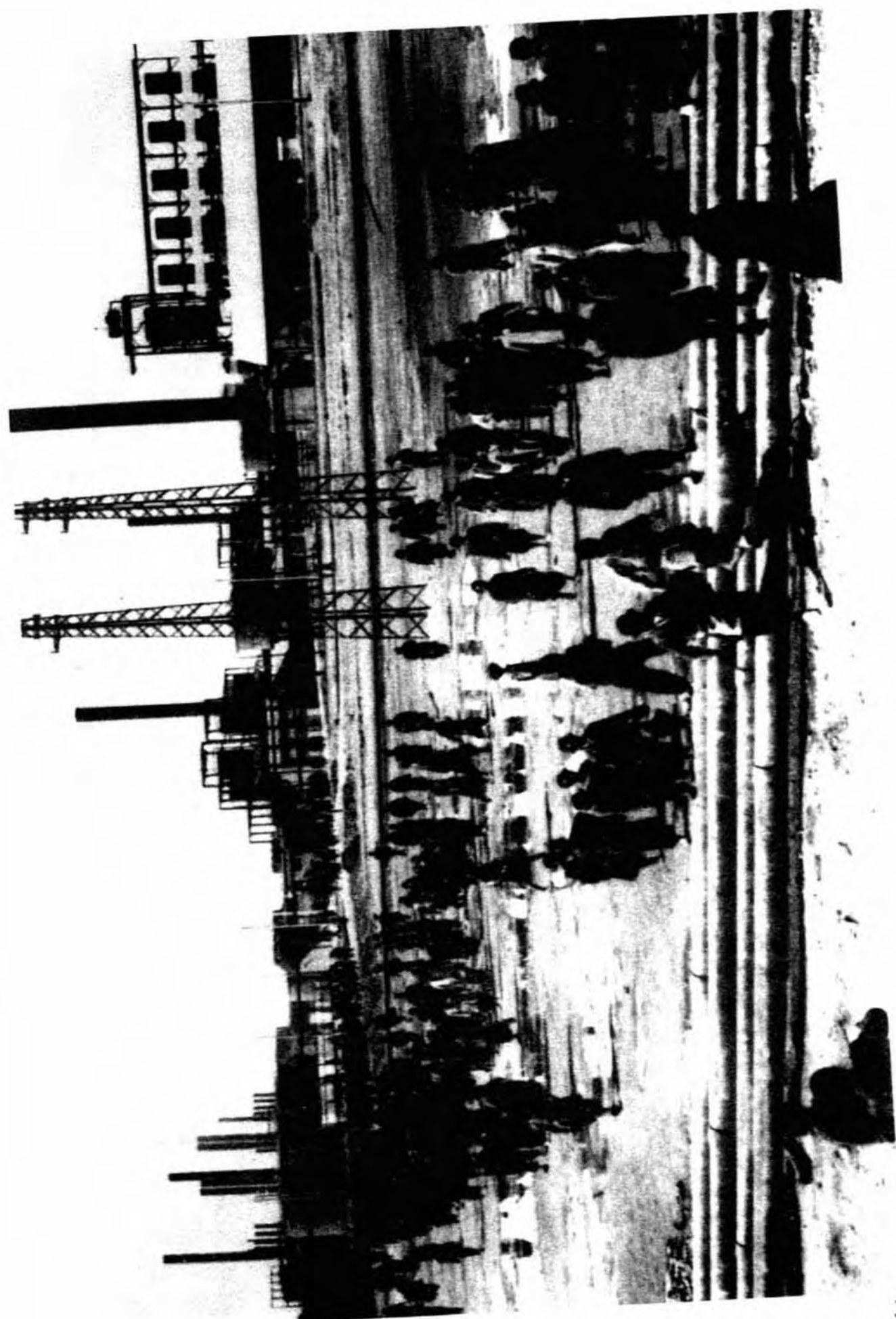
**Plates 1-25: Photographs by British Petroleum**

**Plate 26 : A Shell Photograph**

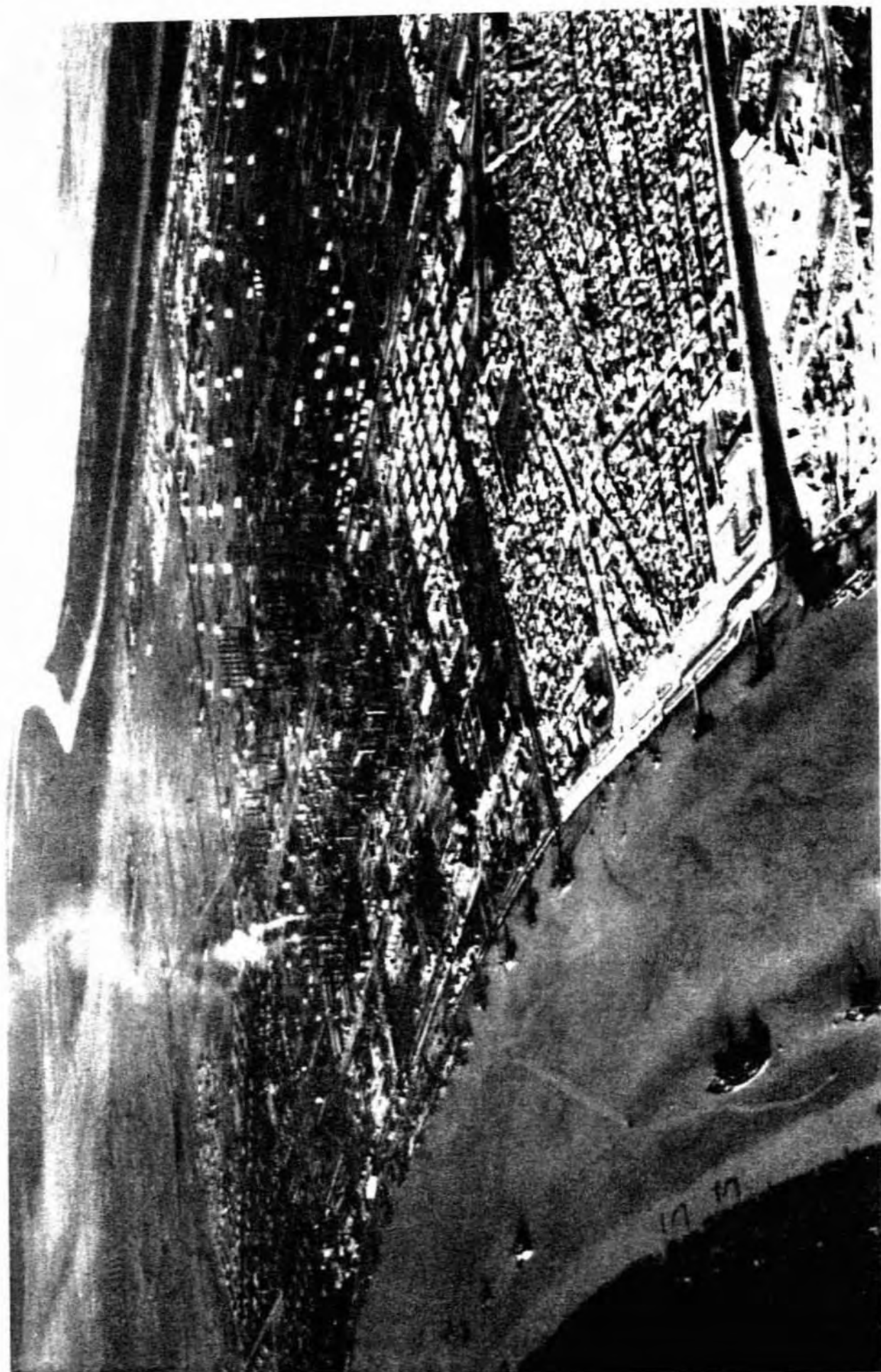




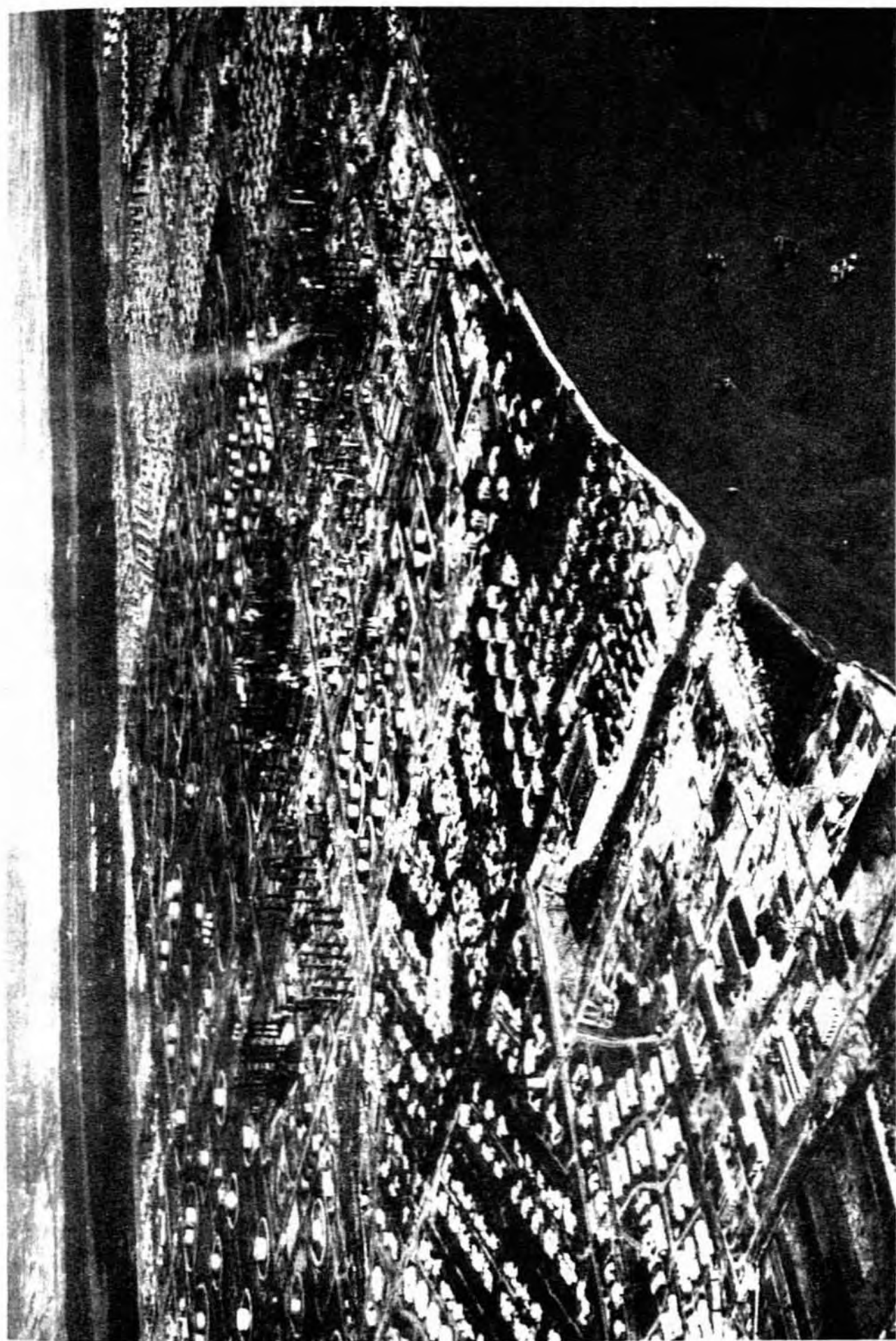




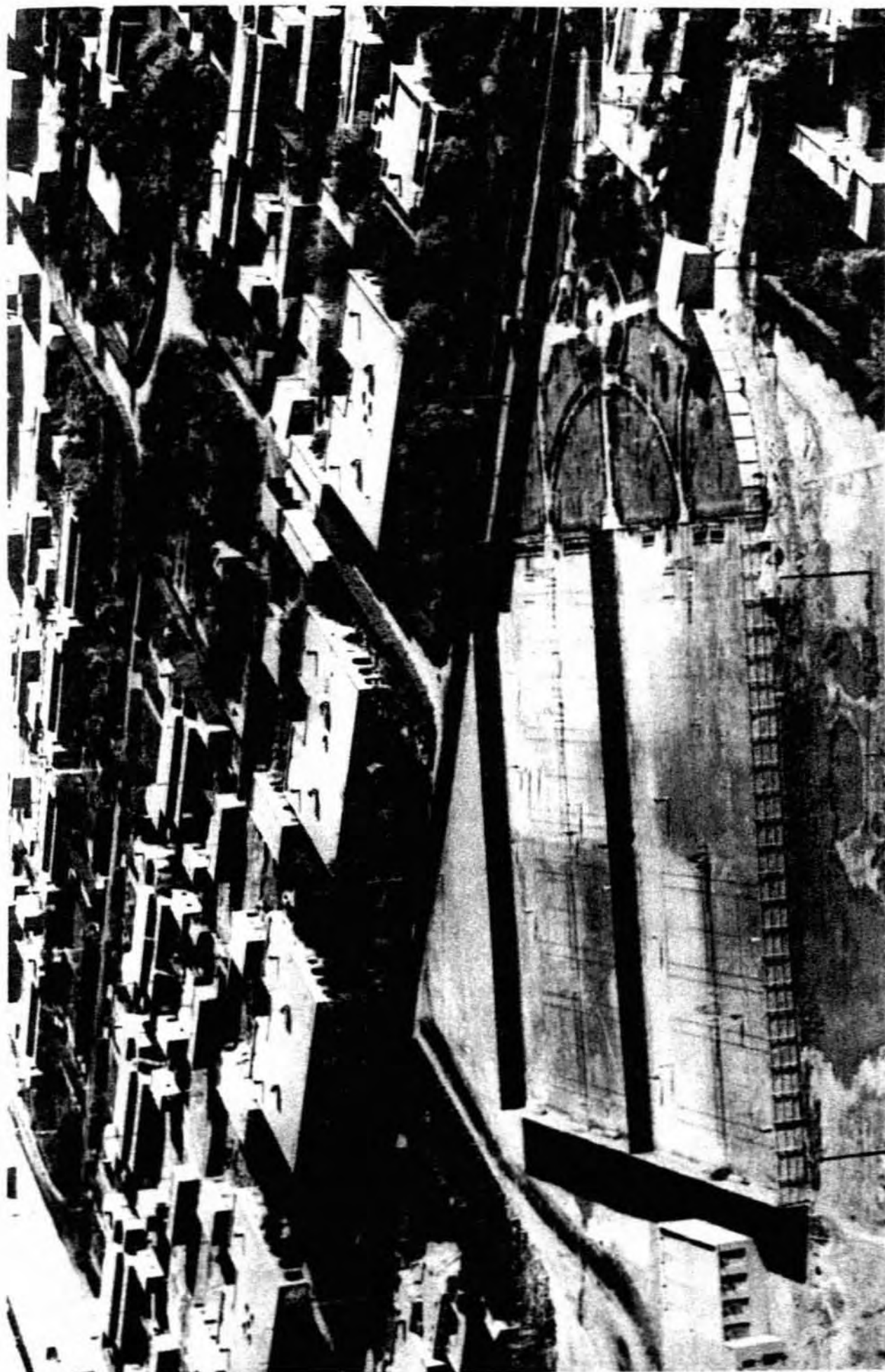




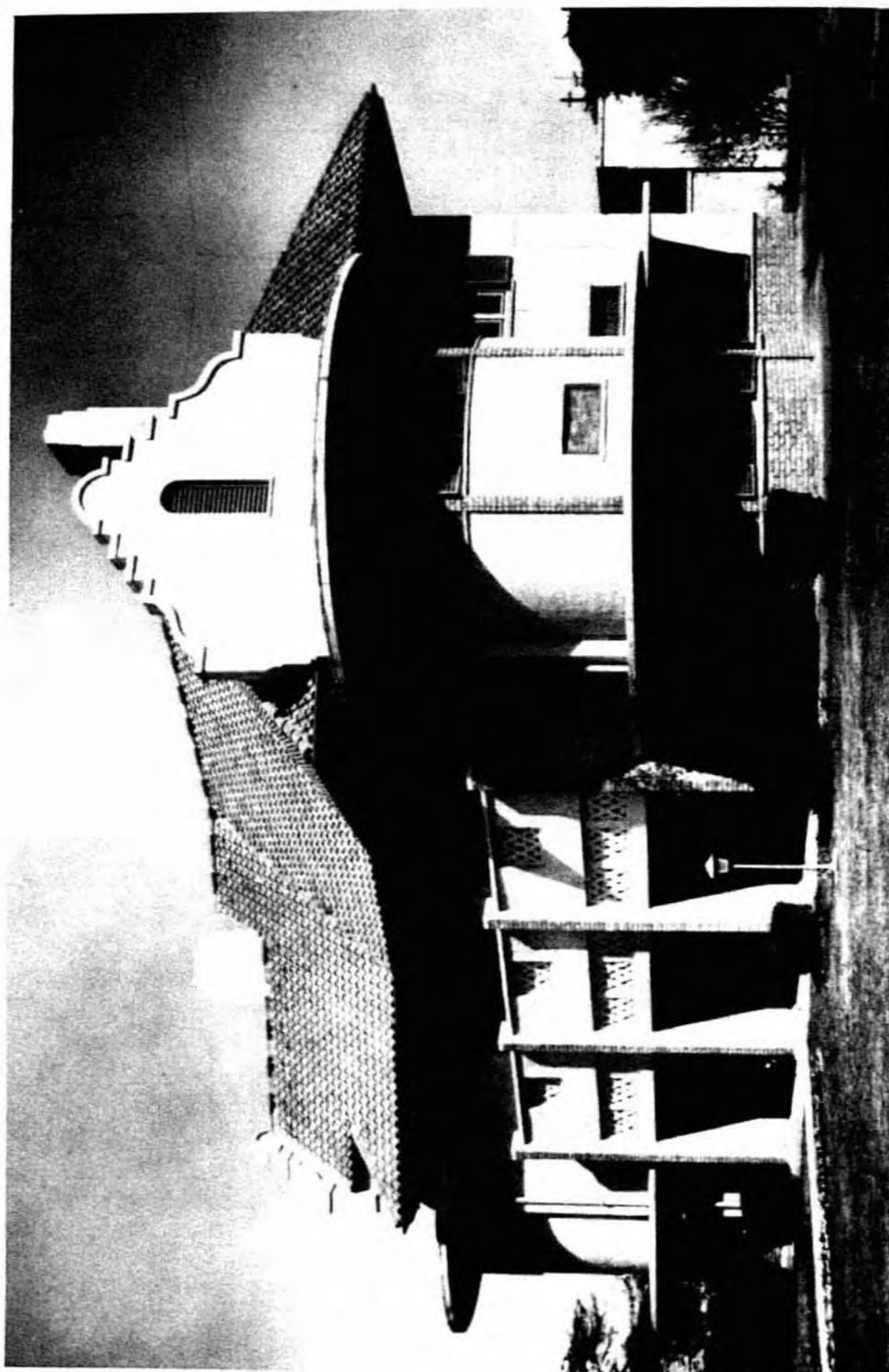






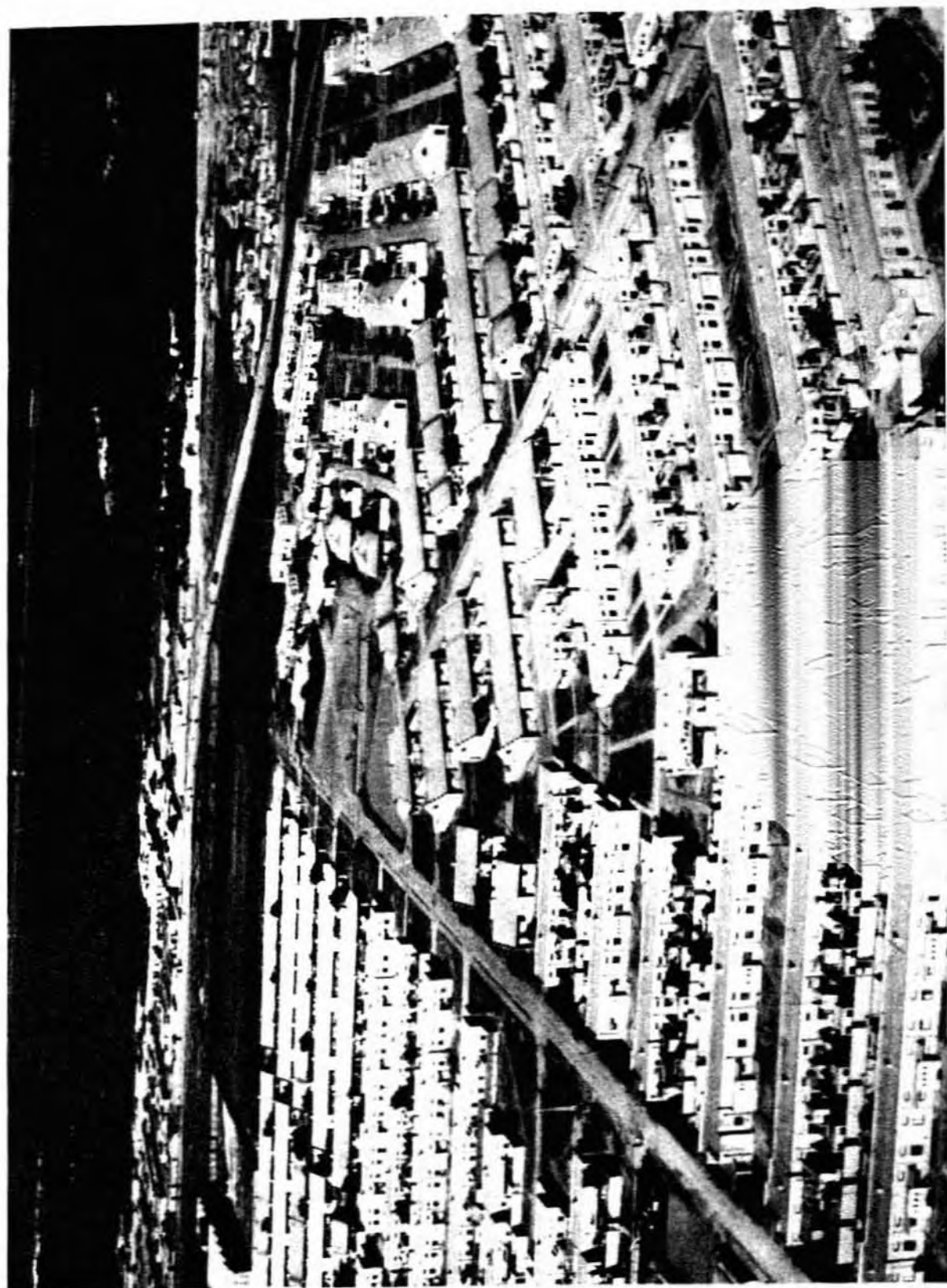


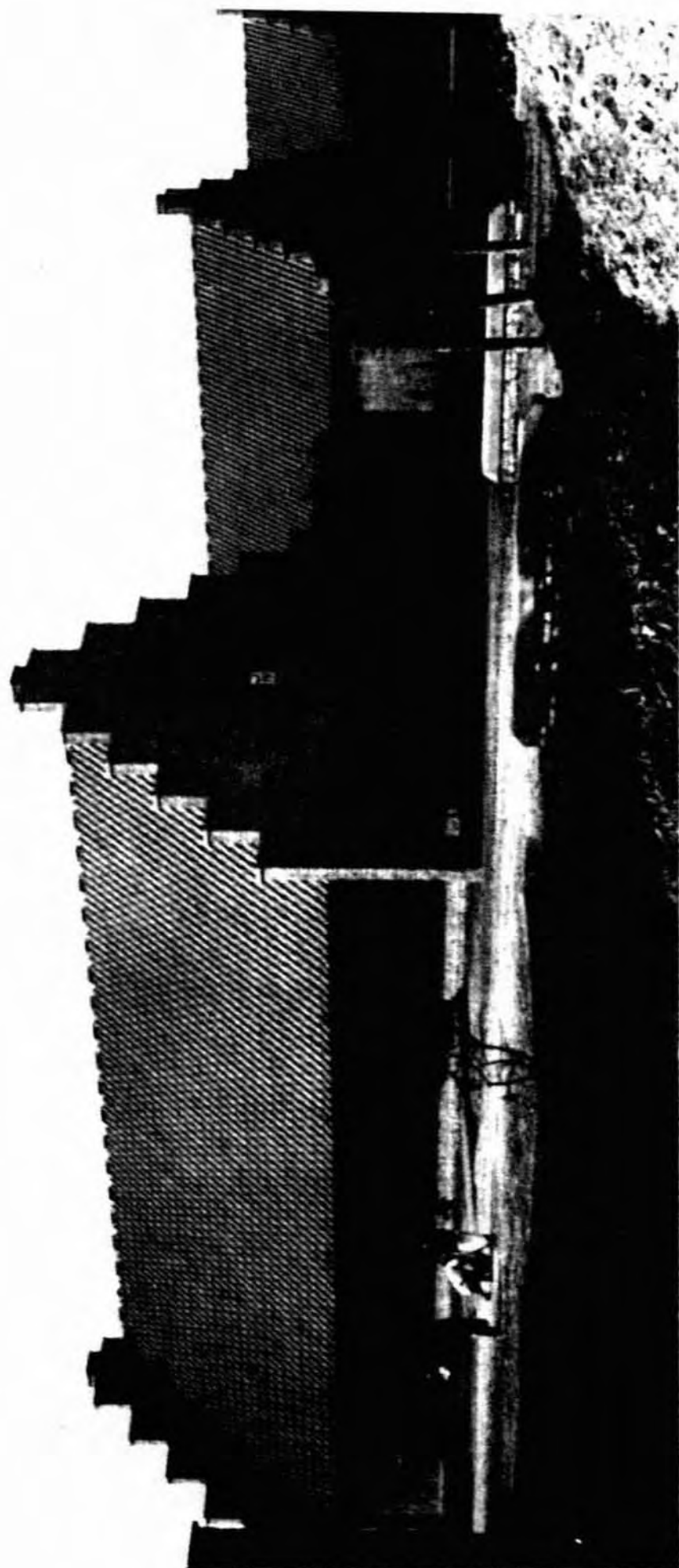






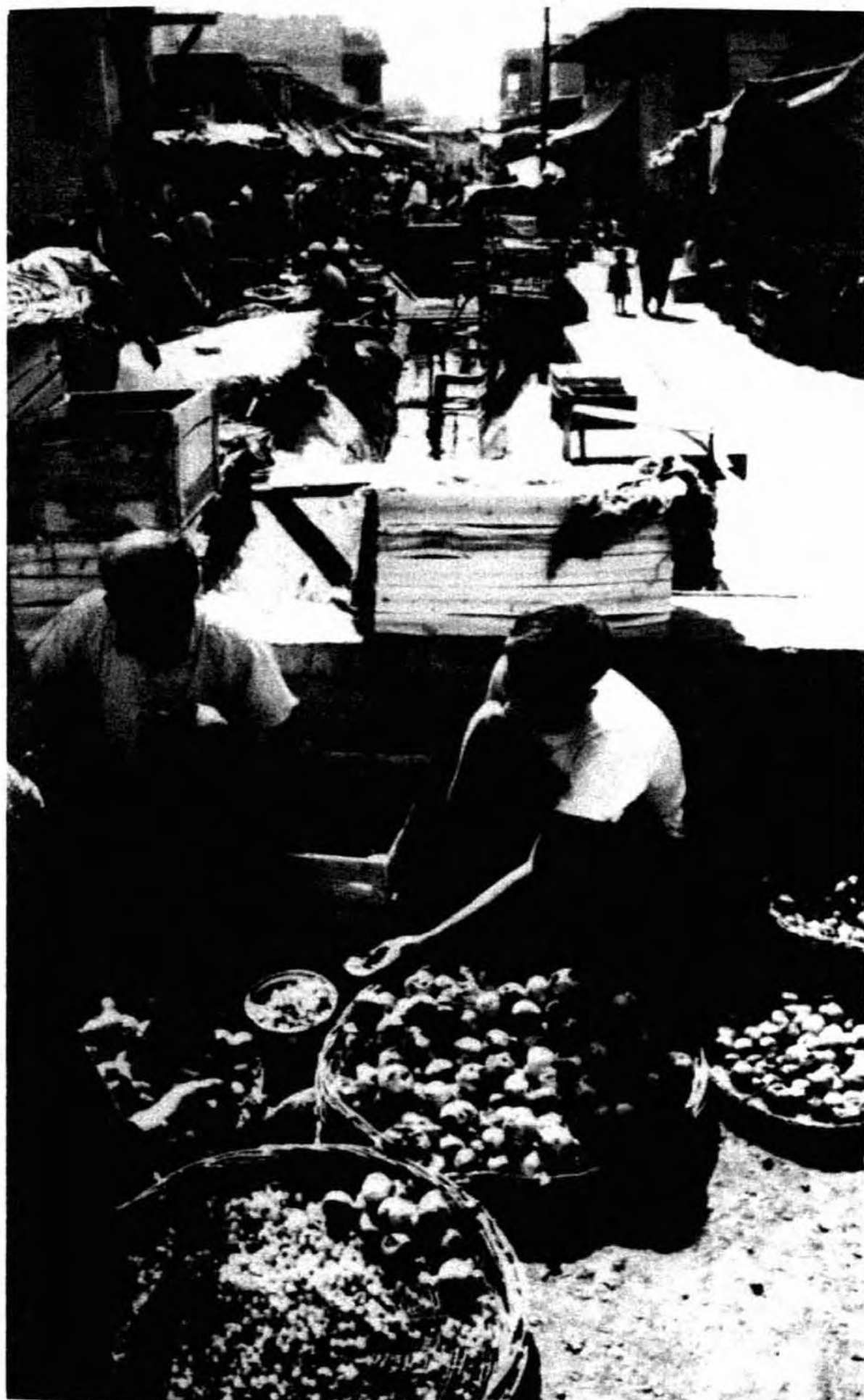




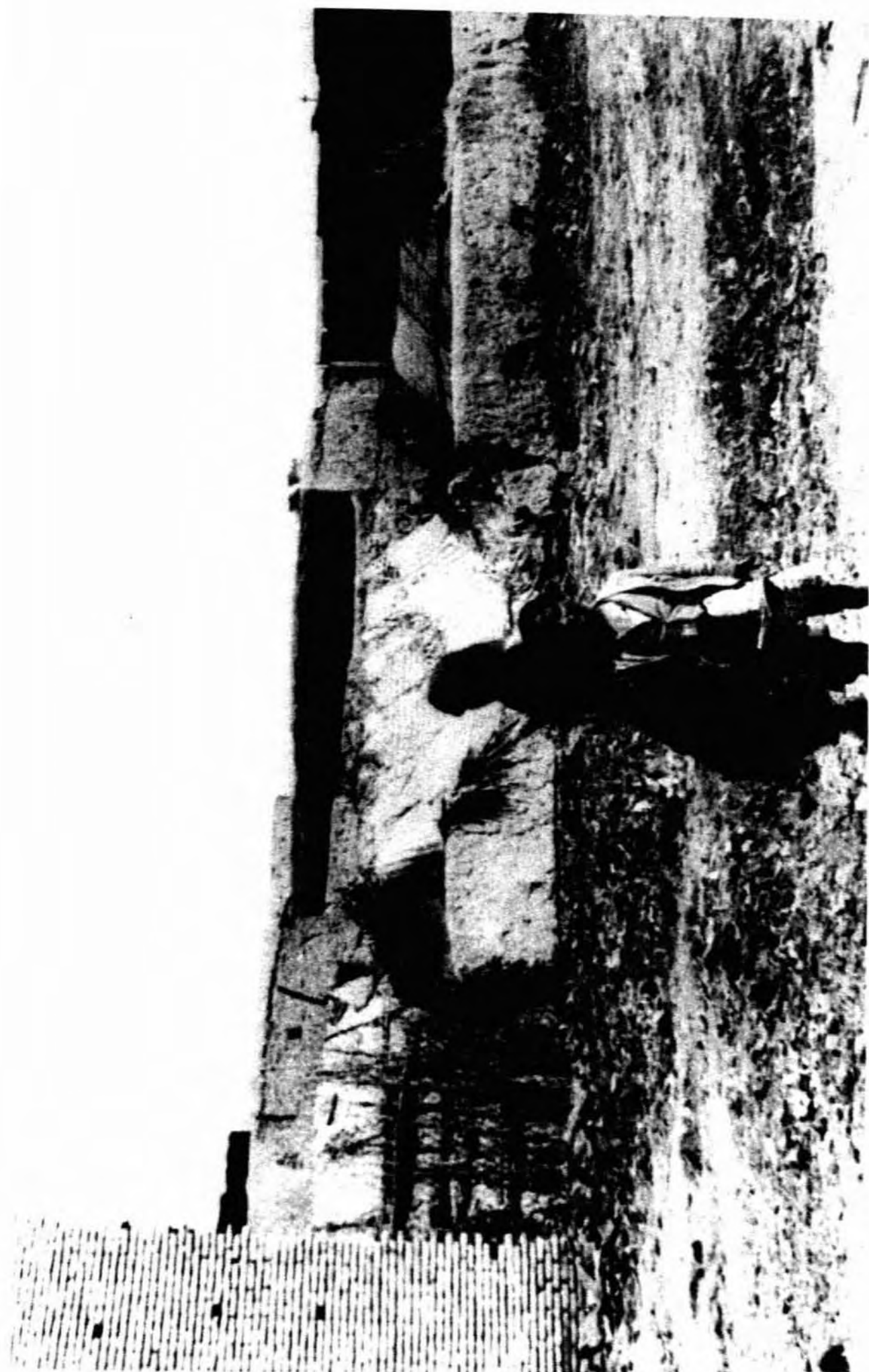








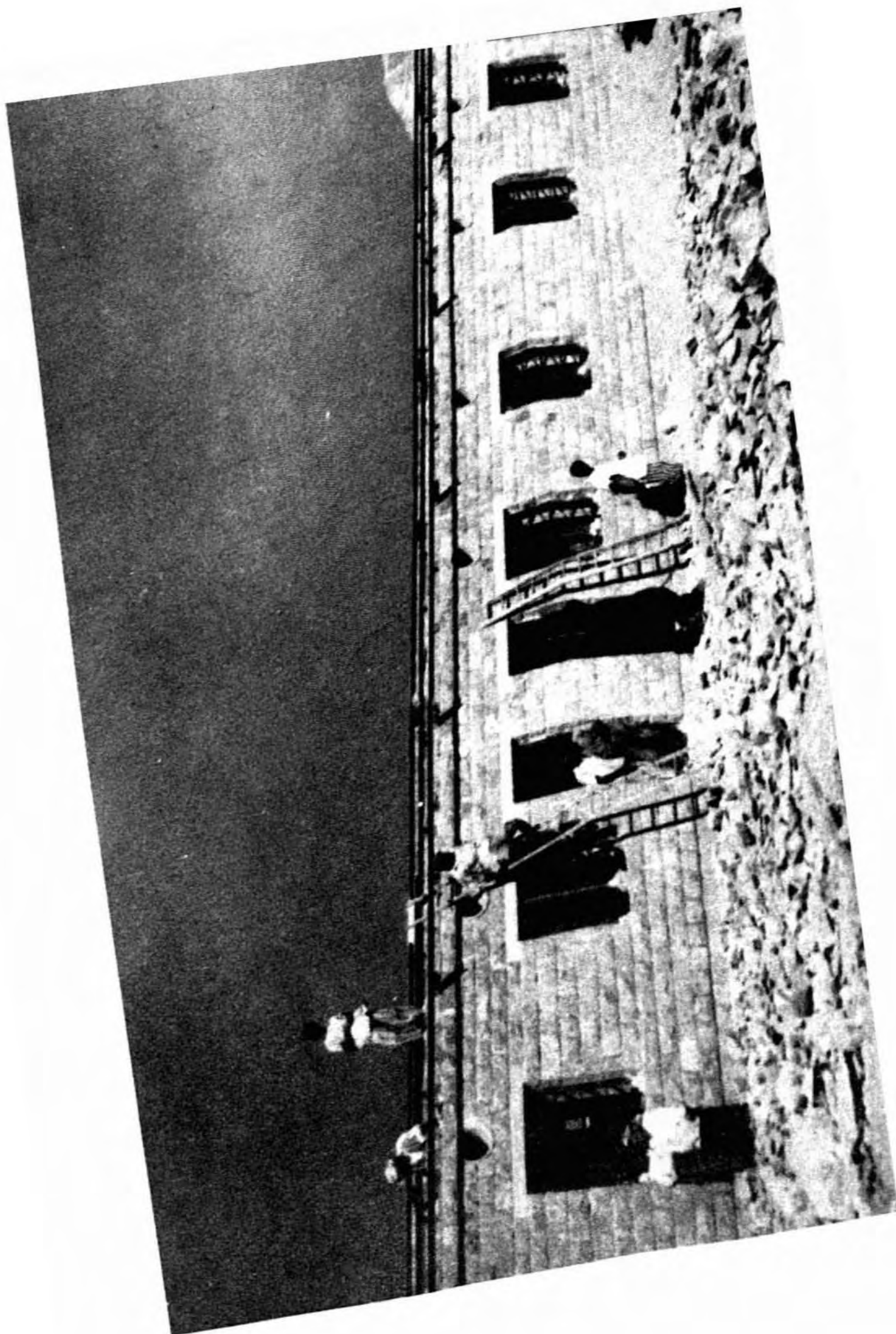


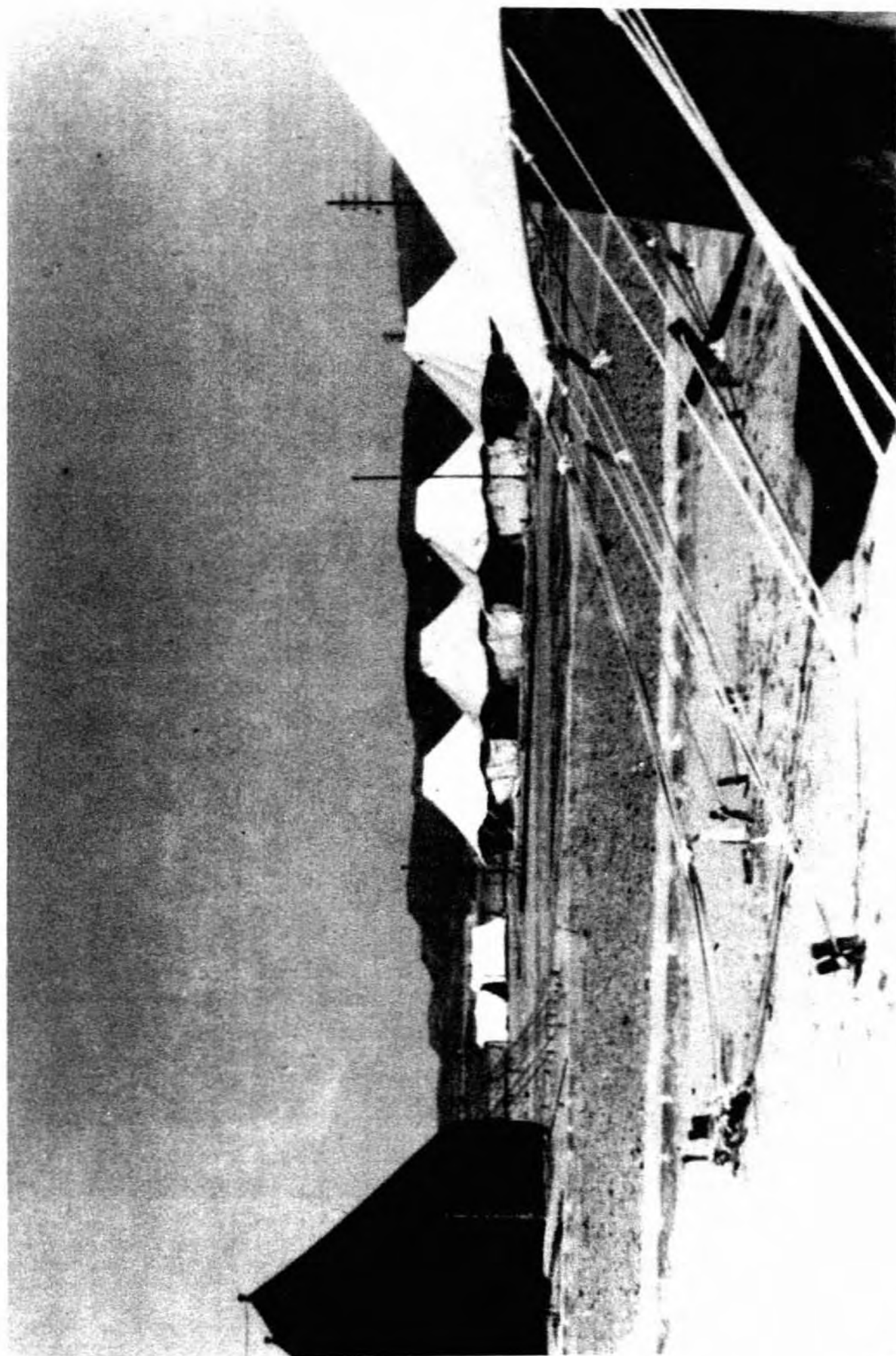










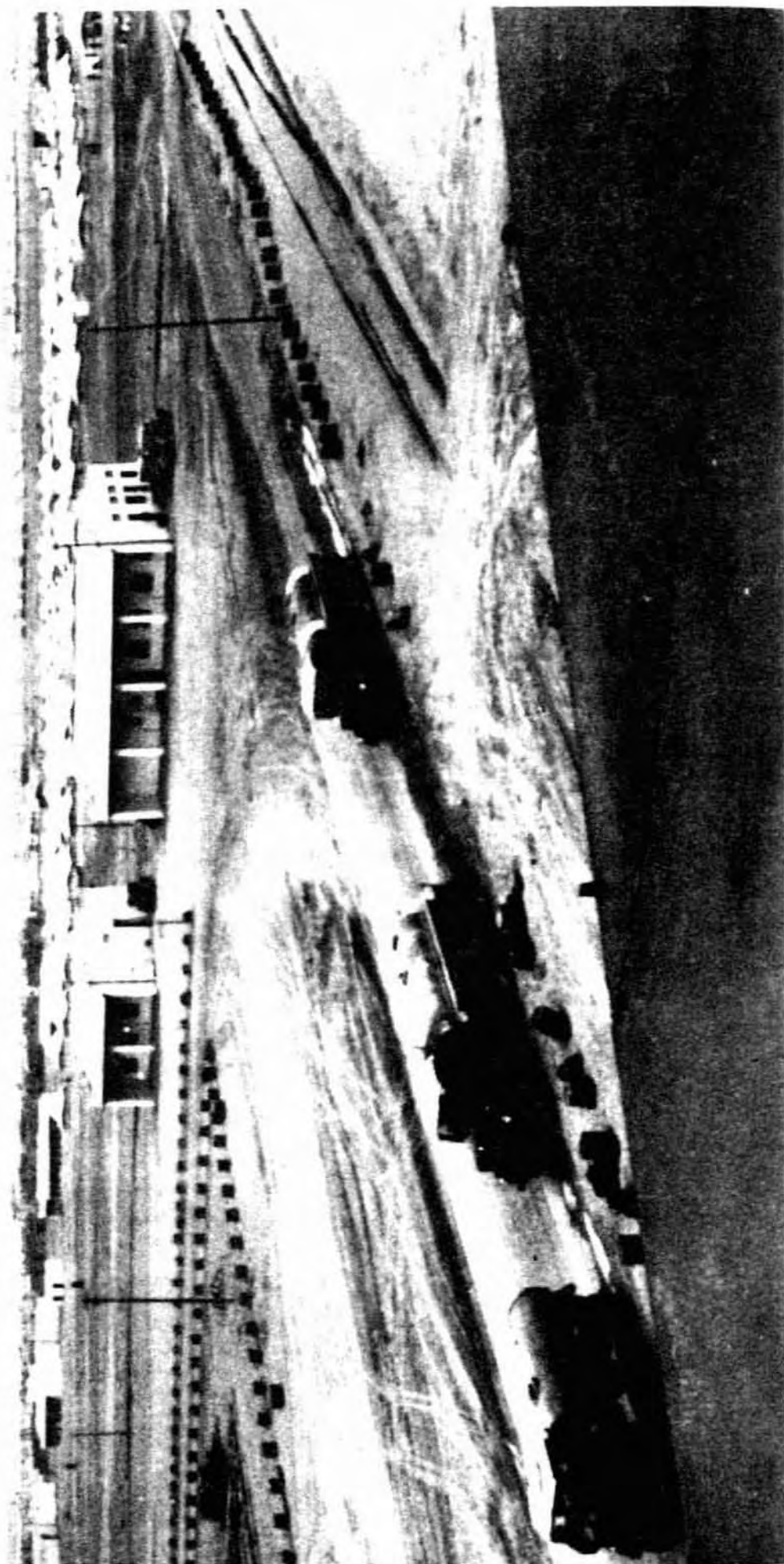




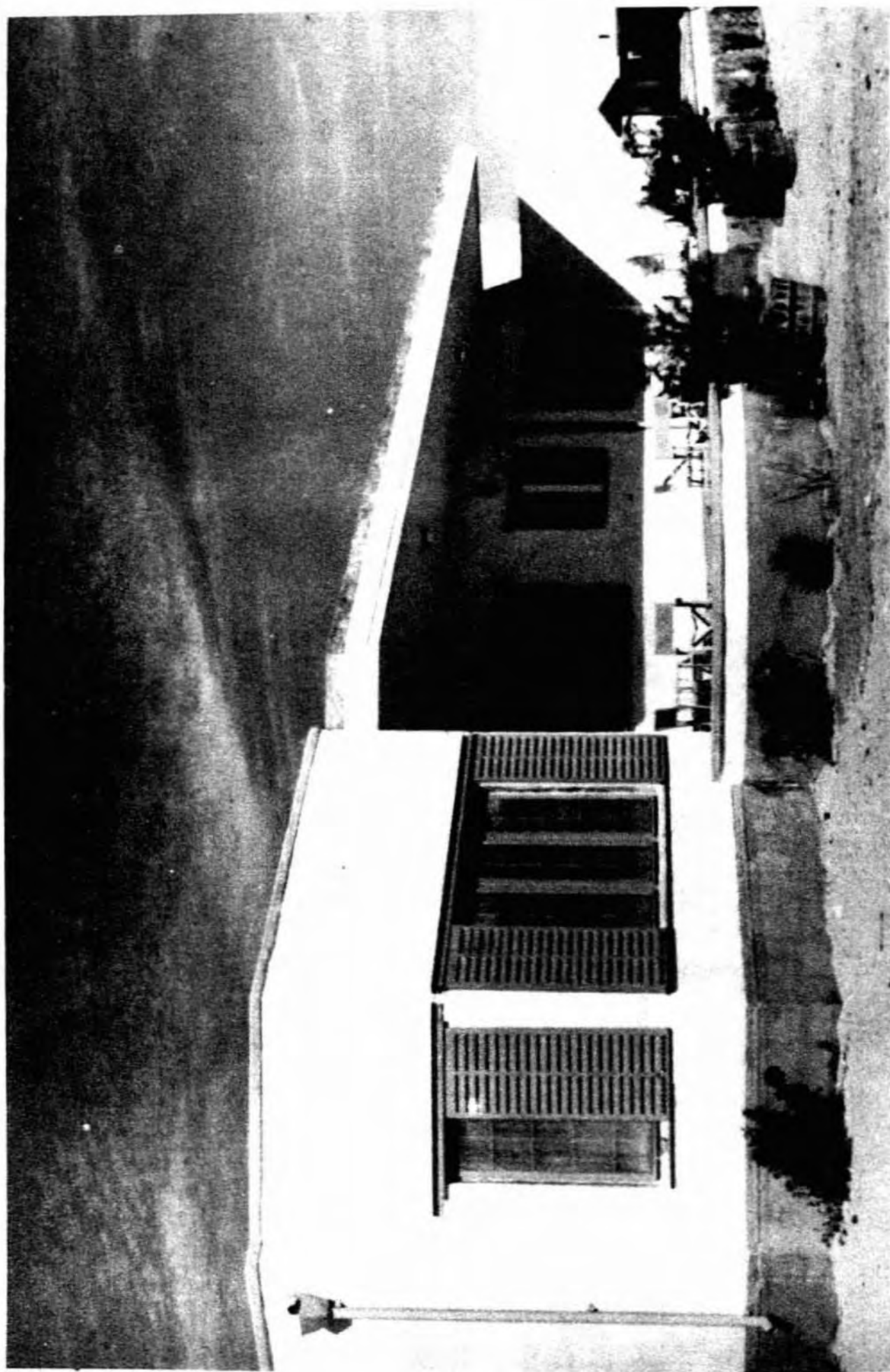




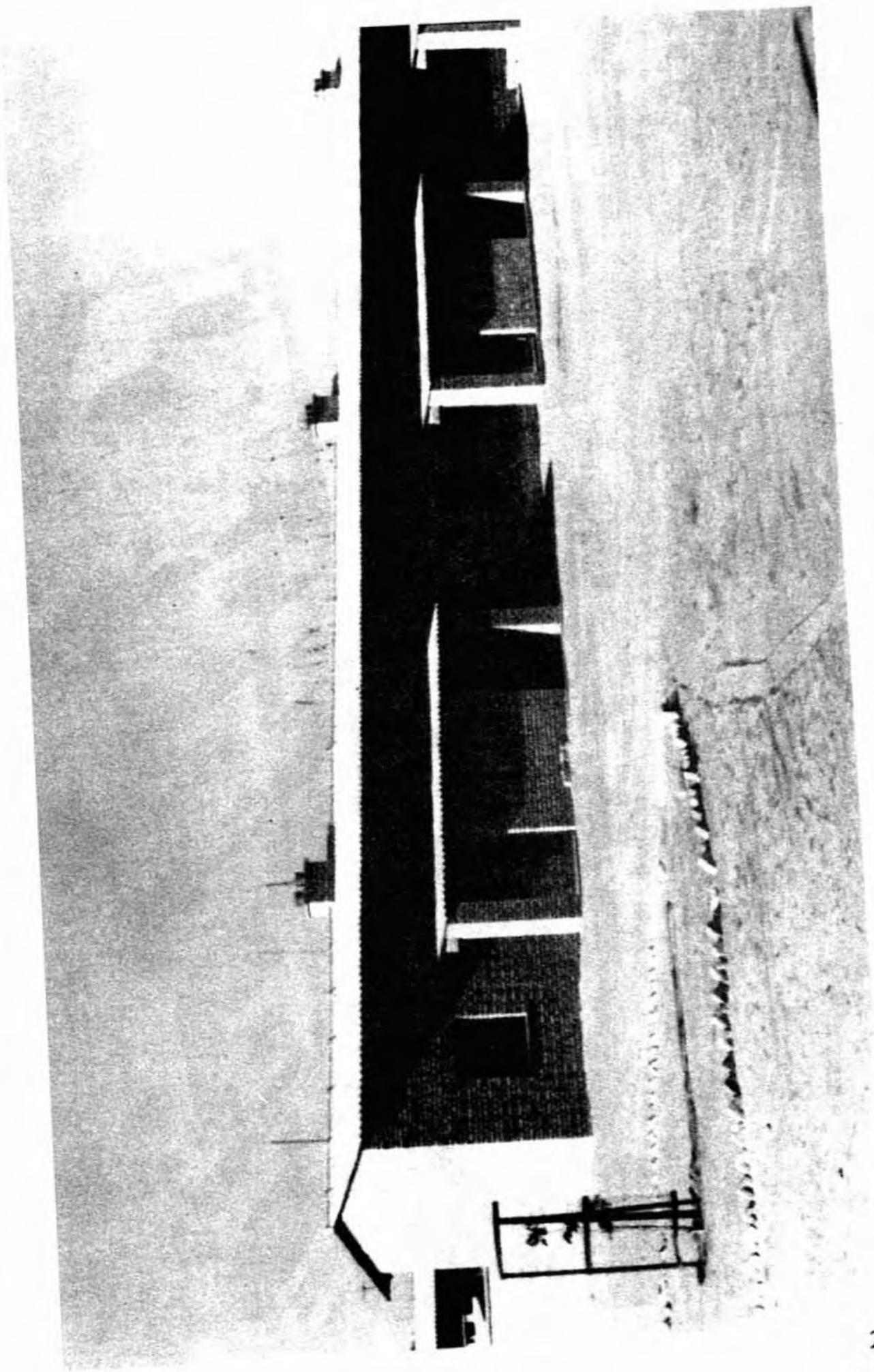














## APPENDIX

Table A.1: Oil Company Employment of 'Indigenous' Labour, 1910-54

Year	APOC/AIOC	BAPCO	KOC	PDQ	CASOC/ ARAMCO	PDTC
1910	1,362					
1911	1,884					
1912	2,449					
1913	2,899					
1914	2,744					
1915	2,203					
1916	2,335					
1917	n.a					
1918	n.a					
1919	3,979					
1920	8,447					
1921	9,009					
1922	18,441					
1923	20,762					
1924	18,384					
1925	15,820					
1926	15,843					
1927	17,887					
1928	16,382					
1929	15,245					
1930	20,095					
1931	14,797					
1932	10,343					
1933	n.a	151				
1934	n.a	394				
1935	15,054	1,312			120	
1936	n.a	3,747	154		1,100	
1937	n.a	3,350	299	28	1,550	
1938	n.a	1,596	168	n.a	2,745	
1939	28,779	1,881	199	n.a	3,178	
1940	23,850	1,849	213	c300	2,688	
1941	19,296	1,293	202	c300	1,647	
1942	20,010	2,215	219	wartime	1,654	
1943	26,381	2,095	62	shut-	2,692	
1944	28,584	2,286	66	down	7,585	
1945	38,244	3,580	253		8,100	
1946	41,530	3,887	1,019		5,491	
1947	42,160	3,829	2,217	1,133	12,018	99
1948	46,087	4,184	4,598	1,755	12,226	69
1949	51,502	4,620	3,971	n.a	n.a	n.a
1950	60,339	4,303	2,545	1,860	10,767	166
1951	n.a	4,937	2,580	1,885	13,786	n.a
1952	n.a	5,771	3,041	1,279	14,819	n.a
1953	n.a	6,049	2,319	1,528	13,555	n.a
1954	n.a	5,829	2,213	n.a	14,182	n.a

Source: see notes

Table A.2: Oil Company Employment of Foreign Workers, 1910-54

Year	APOC/AIOC	BAPCO	KOC	PDQ	CASOC/ ARAMCO
1910	344				
1911	562				
1912	963				
1913	1,146				
1914	1,533				
1915	1,246				
1916	1,590				
1917	n.a				
1918	n.a				
1919	2,805				
1920	3,895				
1921	5,031				
1922	7,715				
1923	6,208				
1924	6,117				
1925	13,085				
1926	10,650				
1927	11,336				
1928	9,415				
1929	8,771				
1930	11,151				
1931	5,842				
1932	4,510				
1933	n.a	164			
1934	n.a	219			
1935	1,929	409			30
1936	n.a	1,291	70	14	60
1937	n.a	1,641	55	n.a	50
1938	n.a	1,022	56	n.a	340
1939	2,723	1,028	72	n.a	463
1940	2,273	906	65	n.a	382
1941	2,079	715	63	n.a	193
1942	1,803	778	67	war	171
1943	2,864	782	16	time	190
1944	3,380	1,033	8	shut	1,475
1945	4,030	2,108	13	down	3,794
1946	4,520	1,695	142		1,806
1947	4,228	2,249	417	427	4,229
1948	4,306	2,176	2,782	1,480	8,028
1949	4,468	3,018	8,734	1,317	6,060
1950	5,247	2,996	5,528	1,249	6,578
1951	n.a	2,812	4,055	1,691	8,609
1952	n.a	2,945	3,460	1,766	10,019
1953	n.a	2,804	4,982	1,779	8,790
1954	n.a	2,703	5,621	n.a	7,676

Source: see notes



Table A.3: British &amp; American 'Senior Staff' Employed by Oil Companies in the Gulf 1933-54

Year	BAPCO		KOC		PD(Q)		CASOC/ ARAMCO US
	British	US	British	US	British	US	
1933	8	19	-	-	-	-	-
1934	15	24	-	-	-	-	-
1935	26	49	n.a	n.a	-	-	c.30
1936	157	153	13	17	1	-	c.60
1937	308	126	13	2	n.a	n.a	c.50
1938	224	90	17	2	n.a	n.a	236
1939	191	67	16	2	n.a	n.a	322
1940	162	55	14	2	8	5	226
1941	158	34	14	2	8	5	107
1942	126	32	14	2	-	-	87
1943	111	39	3	-	-	-	116
1944	97	56	2	-	-	-	961
1945	313	183	9	6	-	-	1,367
1946	324	90	50	11	36	2	894
1947	497	155	95	56	106	17	1,855
1948	585	97	505	459	n.a	n.a	4,184
1949	841	179	1,293	193	180	20	4,811
1950	860	87	546	52	153	16	2,826
1951	n.a	n.a		658		203	3,230
1952		1,157		774	n.a	n.a	4,067
1953		1,147		916	n.a	n.a	3,717
1954		1,127		878	n.a	n.a	3,141

Source: see notes

Table A.4: Oil Company Employment of 'Indians', 1910-54

Year	APOC/ AIOC	BAPCO	KOC	PDQ	CASOC/ARAMCO
1910	158				
1911	379				
1912	553				
1913	917				
1914	1,074				
1915	979				
1916	1,366				
1917	n.a				
1918	n.a				
1919	2,641				
1920	3,616				
1921	4,709				
1922	4,285				
1923	4,715				
1924	4,731				
1925	4,890				
1926	3,588				
1927	3,272				
1928	3,050				
1929	2,518				
1930	2,411				
1931	1,675				
1932	1,420				
1933	795	24			
1934	925	45			
1935	955	61	4		n.a
1936	780	328	40		n.a
1937	785	472	40		n.a
1938	1,340	422	41	5	n.a
1939	1,155	375	54	n.a	n.a
1940	1,160	349	54	5	37
1941	1,005	272	47	28	c.40
1942	1,720	248	52	46	n.a
1943	2,100	297	11		c.50
1944	2,500	444	8		n.a
1945	2,785	681	28		599
1946	2,560	635	177		323
1947	2,470	553	723	194	602
1948	n.a	658	3,211	552	914
1949	2,215	659	4,908	690	1,063
1950	1,980	622	3,203	841	1,122
1951		n.a	2,305	1,010	1,813
1952		781	2,610	997	2,430
1953		722	2,884	n.a	2,406
1954		744	2,940	n.a	2,451

## Tables A.1-A.4

### Notes

BAPCO: Data are for December except 1944 (March) and 1948 (October)

KOC: 1935-39, 1949 and 1950 data are for December; 1940-47 data are for July; 1948 September.

PDQ: 1937 data are for April; 1939-41 and 1947-49 data are for December; 1950 September. Note that PCL office in Bahrain also employed Indians and these are not included on this table. The numbers involved ranged from 31 in December 1947 to 49 in September 1950, the only two years for which data are available. The company also had a few Indians in its exploration teams on the Trucial Coast. Available figures show these to have grown from 2 in December 1947 to 24 in September 1950.

CASOC/ARAMCO: Data are for December with the exception of 1945 (November), 1949 and 1950 (June). Indians working for the company in Bahrain are included.

APOC/AIOC: All data are for December.

### Sources:

BAPCO: IOR R/15/1/657 (1933); IOR L/PS/12/3881 (1934-38); IOR L/PS/12/383 (1939-44); IOR L/PS/12/3720A (1945); IOR L/PS/12/384 (1946-47); PRO FO 371/74942 E4934 (1948); PRO FO 371/82003 EA1011/4 (1949).

KOC: IOR L/PS/12/3823 (1935-47); PRO FO 371/68316 E15566 (1948); PRO FO 371/82116 EA1531/6 (1949); PRO FO 371/91328 EA1534/7 (1950).

PDQ: IOR R/15/2/865 (1937-39); IOR R/6/540 (1940); IOR L/PS/12/3720 (1941); IOR L/PS/12/1301 (1947); PRO FO 371/74942 E4934 (1948); PRO FO 371/82003 EA1011/4 (1949).

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APOC/AIOC: British Petroleum Company personal communication

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- Seccombe, I.J. & Lawless, R.I. (1986b) "Duty shaikhs, subcontractors and recruiting agents : the impact of the international oil industry on recruitment and employment in the Persian/Arabian Gulf, 1900-1950"  
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